# Wisconsin Cancer Incidence and Mortality

Bureau of Health Information and Policy Division of Public Health Wisconsin Department of Health and Family Services

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2000-2004

September 2007

Bureau of Health Information and Policy Division of Public Health Wisconsin Department of Health and Family Services

#### Foreword

Wisconsin Cancer Incidence and Mortality, 2000-2004 presents summary information about Wisconsin cancer incidence (new cancer cases) and mortality (deaths due to cancer) that occurred from 2000 through 2004. The Wisconsin Cancer Reporting System (WCRS), part of the Bureau of Health Information and Policy, Division of Public Health, Department of Health and Family Services (DHFS), collects reports of all newly diagnosed Wisconsin resident cancer cases from hospitals, clinics, physician offices and out-of-state central cancer registries. This report would not be possible without the conscientious reporting of all these sources.

Since 1976, WCRS has collected cancer incidence data on Wisconsin residents as mandated by section 255.04, Wisconsin Statutes, and HFS 124.05(3)(h), Wisconsin Administrative Code. All invasive and noninvasive malignant tumors, except basal and squamous cell carcinomas of the skin and *in situ* cancers of the cervix uteri, are reportable to WCRS. Starting in 1994, WCRS entered into a cooperative agreement with the U.S. Centers for Disease Control and Prevention (CDC) and became part of the National Program of Cancer Registries (NPCR).

Wisconsin Cancer Incidence and Mortality, formerly an annual report, is now produced every two years. (In alternate years WCRS and the American Cancer Society produce Wisconsin Cancer Facts and Figures.) An important change in this edition of the WCRS biennial report is that for the first time cancer incidence and mortality rates are presented for Hispanics/Latinos. Like the 1998-2002 report, it also provides five-year average incidence and mortality rates for four race groups (African-American, Asian/Pacific Islander, American Indian and white). This report presents invasive cancer data (except *in situ* bladder cancer, and benign brain tumors for 2004), as is the standard practice in most state and national cancer publications.

Wisconsin Cancer Incidence and Mortality, 2000-2004 was produced by the Department of Health and Family Services. Cancer Reporting System staff (Robert Borchers, Linda Ramsden and Kim Ortman) collected, edited and reviewed the data used in this report. Laura Stephenson created the final data set and prepared data tables and graphs. Mary Foote developed the statistical data and text for this report. The report was edited by Patricia Nametz. It was prepared under the supervision of Judith Nugent, Section Chief, Health Care Information Section, and the general direction of Patricia Guhleman, Director, Bureau of Health Information and Policy.

We acknowledge the Centers for Disease Control and Prevention (CDC) for its support of this publication under CDC Cooperative Agreement U58/DP000829. It contents are solely the responsibility of the authors and do no necessarily represent the official views of the CDC. This publication, as well as other information about WCRS operations and previous annual and special reports, is available at the Department's Web site (see address below). Requests for additional cancer incidence data may be addressed to:

Cancer Reporting System, Bureau of Health Information and Policy
Division of Public Health
Wisconsin Department of Health and Family Services
P.O. Box 2659
Madison WI 53701-2659
(608) 266-8926

http://dhfs.wisconsin.gov/wcrs/index.htm

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#### **Introductory Guide for Reading this Report**

Content of the Report. Wisconsin Cancer Incidence and Mortality 2000-2004 summarizes data on cases among Wisconsin residents diagnosed with cancer between January 1, 2000 and December 31, 2004 and reported to the Wisconsin Cancer Reporting System (WCRS) by January 31, 2007. Approximately 95 percent of WCRS's estimated 2000-2003 cases and approximately 93 percent of 2004 cases are included in this report, according to the national standard for completeness from the North American Association of Central Cancer Registries (NAACCR). Generally the lower completeness for 2004 results in slightly lower incidence rates and makes 2004 annual data less comparable to annual data from previous years. Mortality data were drawn from the 2000-2004 Wisconsin resident death files where the underlying cause of death was listed as cancer.

In this report, tables and graphs for incidence and mortality data are presented for the major cancer sites. Cancer site classifications are those established by the Surveillance, Epidemiology, and End Results (SEER) program at the National Cancer Institute (NCI) and used by the North American Association of Central Cancer Registries (NAACCR). These standard site classifications allow comparisons to national and other state publications.

In addition to demographic characteristics of sex and age, this report presents data by race in four categories: white, African American, American Indian and Asian/Pacific Islander. Data by Hispanic/Latino ethnicity are presented for the first time in this edition of the report. Hispanic/Latino cancer incidence rates are derived from an application of the NAACCR Identification Algorithm Version 2 (NHIA v2). The NHIA v2 produces Hispanic/Latino rates for all races combined. For comparability to previous reports, and due to the small number of cancer cases among racial and ethnic minorities, rates by race are shown independent of rates by Hispanic/Latino ethnicity. Five years of combined data are used to present rates by race, ethnicity and county of residence at diagnosis. All rates based on five years of data should be interpreted as average annual rates. Five-year averages provide more reliable age-adjusted rates for the relatively small minority racial groups in Wisconsin.

A change in reporting requirements occurred in October 2002 with The Benign Brain Tumor Cancer Registries Amendment Act, the Federal mandate to collect data on all brain-related tumors, meaning all primary brain tumors whether malignant or benign. Data collection for non-malignant primary intracranial and central nervous system tumors began January 1, 2004. In this report those few cases of benign brain and central nervous system tumors are counted in the "all cancer sites" chapter.

The county variable in this report is based on the patient's residence at time of diagnosis for incidence data, and residence at time of death for mortality data. As with the race variable, age-adjusted rates by county were calculated for 2000-2004 combined years of data, because the annual number of cases in each county was often small.

*Data Sources*. This report includes all cancer cases diagnosed in 2000-2004 among Wisconsin residents. These cases were reported by Wisconsin hospitals, clinics and physician offices, cooperating out-of-state cancer registries and selected Minnesota hospitals.

Mortality data used in this report reflect Wisconsin resident death records for the years 2000-2004 from the Vital Records Section, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services. The data file used was the National Center for Health Statistics public use data file of Wisconsin resident deaths. Cancer mortality rate calculations are based on the underlying cause of death recorded on the death certificate.

*Invasive Cases*. This annual report focuses on invasive cancer data to make the data comparable with national data and data from other states. Following national standards, invasive cancer rates exclude all *in situ* cancer cases except those of the urinary bladder.

Age-adjusted Incidence and Mortality Rates. Following National Cancer Institute (NCI) and CDC guidelines, WCRS age-adjusts incidence and mortality rates per 100,000 population for Wisconsin residents to the U.S. Census Bureau's 2000 U.S. standard population age distribution. The SEER\*Stat software package, from NCI, was used to calculate both incidence and mortality rates. The populations used as denominators for all calculations are described in Appendix 6. All rates in the report are age-adjusted to account for differences in age distribution over time and across different geographic regions.

Cancer incidence rates reflect the number of newly diagnosed cancers in the population, rather than the number of individuals who have been newly diagnosed with cancer. For example, in this report, a person diagnosed with two cancers in the same year will be counted as two cancer cases in the annual count of cancer incidence. Thus "cancer cases" are distinguished from "individuals with cancer."

*Incidence and Mortality Comparisons*. The incidence data presented in this report reflect new cancers diagnosed in 2000-2004. The mortality data represent cancer deaths that occurred in 2000-2004; the cancer that led to the death *may have been diagnosed prior to* 2000. It is important that readers not make assumptions about survival rates or percents based on the incidence/mortality ratios.

**Data Quality and Limitations.** This report represents data collected from different types of facilities. Reporting sources vary in their ability to provide timely and complete data, and WCRS appreciates the efforts of reporting facilities to ensure the overall good quality of Wisconsin cancer reports. However, variations in facility compliance and reporting practices exist based on the resources of the facility and the experience and qualifications of the reporters.

All Wisconsin-based facilities are required by Wisconsin statute to abstract and report cancer incidence data to WCRS within six months from the date of diagnosis or date of first contact with the patient. This 'six-month rule' is the national standard that all central cancer registries work to achieve and maintain.

WCRS staff edit, process and analyze the cancer data received. Quality assurance measures are in place to identify incomplete and/or inaccurate incoming data. Facility-specific contacts (in person, by phone, or by written correspondence) and group training sessions are implemented as needed (WCRS-initiated) or requested (facility-initiated).

The five-year time frame of this report provides increased reliability for certain data analyses, as small numbers of cases are reported for less common cancer sites, minority race and ethnic groups and county-level data. When reviewing the statewide annual data provided in this report, caution is also warranted when computing rates or relative proportions for specific cancer sites due to the relative rarity of some cancers.

# **Chapter 1: All Cancer Sites**

#### **Incidence**

Each year from 2000 through 2004, an annual average of 26,717 cancers were diagnosed among Wisconsin residents. The average age-adjusted incidence rate for all cancers was 474.1 per 100,000 Wisconsin residents (Table 1.1).

For Wisconsin males during 2000-2004 the most commonly diagnosed cancer was prostate cancer (average annual age-adjusted rate of 164.5 per 100,000 males). The second leading cancer among males was cancer of the lung and bronchus (83.0 per 100,000). Cancer of the colon and rectum was the third leading cancer among males (62.6 per 100,000) (Figure 1.7).

For Wisconsin females during 2000-2004 the most commonly diagnosed cancer was cancer of the breast (average annual age-adjusted rate of 129.3 per 100,000 females). Cancer of the lung and bronchus was the second leading cancer among females (52.4 per 100,000), and cancer of the colon and rectum was third (45.8 per 100,000) (Figure 1.8).

# **Mortality**

Cancer is second only to heart disease as the leading cause of death in Wisconsin, with an average of 10,750 cancer deaths each year from 2000 through 2004. The average age-adjusted mortality rate was 187.5 per 100,000 population for all cancers combined (Table 1.2).

Among females in Wisconsin during 2000-2004 the leading cause of cancer mortality was cancer of the lung and bronchus (37.4 per 100,000). Breast cancer ranked second as a cause of cancer mortality among women (24.5 per 100,000) and cancer of the colon and rectum third (15.6 per 100,000) (Figure 1.8).

Among males in Wisconsin during 2000-2004, lung and bronchial cancer was the leading cause of cancer mortality (average annual age-adjusted mortality rate of 65.4 per 100,000), causing twice the deaths of any other cancer. Prostate cancer was the second leading cause of cancer mortality among males (29.6 per 100,000) and cancer of the colon and rectum was third (23.0 per 100,000) (Figure 1.7).

Table 1.1. Cancer Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 2000 - 2004

		Male			Female			Total	
Year of	Number	Age-Adj.		Number	Age-Adj.		Number	Age-Adj.	
Diagnosis	of Cases	Rate	APC	of Cases	Rate	APC	of Cases	Rate	APC
Annual Avg.									
2000-2004	13,795	552.7	-2.4%	12,922	419.6	-2.4%	26,717	474.1	-2.3%
2000	13,761	569.3	N/A	12,922	430.2	N/A	26,683	486.5	N/A
2001	14,072	574.3	N/A	13,357	439.6	N/A	27,429	494.0	N/A
2002	13,959	560.7	N/A	12,935	420.2	N/A	26,894	478.2	N/A
2003	13,823	545.6	N/A	13,076	420.0	N/A	26,899	470.8	N/A
2004	13,360	515.7	N/A	12,319	390.0	N/A	25,679	442.9	N/A

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin

Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Number of

cases is for all invasive cancers and in situ bladder cases. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

Table 1.2. Cancer Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 2000-2004

	Male			Male Female						Total			
Year of	Number	Age-Adj.		Number	Age-Adj.		Number	Age-Adj.					
Death	of Deaths	Rate	APC	of Deaths	Rate	APC	of Deaths	Rate	APC				
Annual Avg. 2000-2004	5,590	233.6	-1.1%	5,161	157.5	-1.2%	10,750	187.5	-1.0%				
2000	5,529	239.3	N/A	5,109	159.8	N/A	10,638	190.6	N/A				
2001	5,591	237.6	N/A	5,186	159.7	N/A	10,777	190.6	N/A				
2002	5,567	232.6	N/A	5,261	161.6	N/A	10,828	189.3	N/A				
2003	5,547	228.0	N/A	5,101	153.7	N/A	10,648	182.9	N/A				
2004	5,715	230.8	N/A	5,146	153.7	N/A	10,861	184.6	N/A				

Source: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Number of

cases is for all invasive cancers and in situ bladder cases. Annual Percent Change (APC) represents the average annual

percent change; see Definitions, page 130, for a more complete description.

600 Rate per 100,000 550 500 450 400 350 2000 2001 2002 2003 2004 569.3 545.6 Wis. Males 574.3 560.7 515.7 420.0 390.0 - Wis. Females 430.2 439.6 420.2 ··· U.S. Males 575.5 574.1 565.1 547.3 534.2 419.4 422.7 421.3 408.3 405.0 ▲ U.S. Females

Figure 1.1. Cancer, Age-Adjusted Incidence Rates, by Sex, Wisconsin and United States, 2000 - 2004

# Year of Diagnosis

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

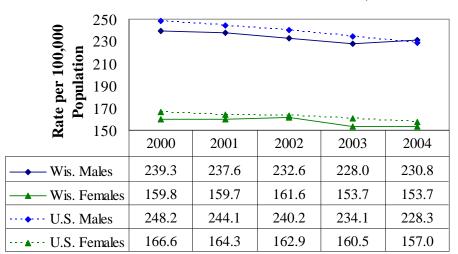


Figure 1.2. Cancer, Age-Adjusted Mortality Rates, by Sex, Wisconsin and United States, 2000 - 2004

#### Year of Death

Sources: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

## Male Incidence

Female Incidence

Male Mortality

Female Mortality

Female Mortality

00-04 05-09 10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75-79 80-84 85+

Figure 1.3. Cancer, Age-Specific Incidence and Mortality Rates, By Sex, Wisconsin, 2000 - 2004

**Age Groups** 

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and the National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Note: Rates are per 100,000 population (2000-2004) for each age group and sex.

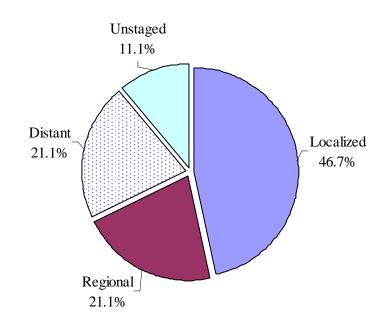


Figure 1.4. Cancer, Stage of Disease at Diagnosis, Wisconsin, 2000 - 2004

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin

Department of Health and Family Services.

Note: See Definitions, page 131, for definition of stage of disease at diagnosis.

700 Rate Per 100,000 600 Population 500 400 300 200 Males Females Total 543.9 417.6 White
 ■ 469.1 430.6 551.1 ■ Af. Am. 728.5 591.9 435.6 497.0 Nam. Ind. ■ 299.5 322.5 289.4 ■ Asian/PI 401.2 325.1 358.0 ☐ Hisp./Lat.

Figure 1.5. Cancer, Age-Adjusted Incidence Rates, by Race, Ethnicity and Sex, Wisconsin, 2000 - 2004

Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin

Department of Health and Family Services.

Rates are per 100,000 population in each group and are age-adjusted to the 2000 U.S. standard population. Notes: Race categories are not mutually exclusive from the Hispanic/Latino origin category.

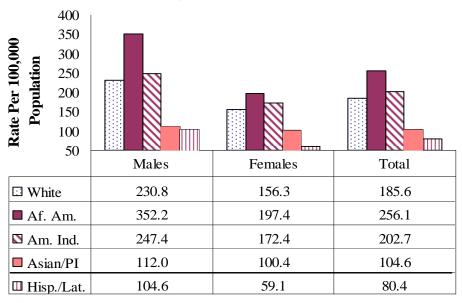


Figure 1.6. Cancer, Age-Adjusted Mortality Rates, by Race, Ethnicity and Sex, Wisconsin, 2000 - 2004

National Center for Health Statistics' Wisconsin public use mortality file, as analyzed using SEER\*Stat. Source: Notes: Rates are per 100,000 population in each group and are age-adjusted to the 2000 U.S. standard population. Race categories are not mutually exclusive from the Hispanic/Latino origin category.

Table 1.3. Cancer Incidence and Mortality: Number of Cases and Deaths, Average Age-Adjusted								
Rates	and Confid	ence Interv	als, by Count	ty, Wiscons	sin, 2000-20	004		
		Inci	dence			Mort	ality	
	Total	Average	Confidence	Interval	Total	Average	Confidence Interval	
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper
Adams County	522	354.5	323.9	387.5	319	214.8	191.4	240.6
Ashland County	457	472.2	429.4	518.4	195	190.0	163.8	219.3
Barron County	1,119	404.6	381.0	429.3	531	180.4	165.3	196.7
Bayfield County	390	396.3	357.6	438.4	213	217.0	188.7	248.9
Brown County	5,127	486.2	472.9	499.7	1,794	171.8	163.9	180.0
Buffalo County	339	393.7	352.6	438.5	165	186.4	158.9	217.7
Burnett County	417	355.5	321.4	392.8	248	206.6	181.4	234.9
Calumet County	819	426.0	397.1	456.3	319	170.7	152.4	190.6
Chippewa County	1,465	465.9	442.2	490.5	586	181.2	166.7	196.6
Clark County	911	466.5	436.2	498.4	352	163.3	146.2	181.8
Columbia County	1,466	489.8	465.0	515.7	600	194.4	179.1	210.8
Crawford County	519	500.6	458.0	546.3	220	202.2	176.2	231.1
Dane County	8,569	459.2	449.4	469.1	3,123	174.8	168.7	181.1
Dodge County	2,070	443.8	424.9	463.5	998	207.0	194.3	220.3
Door County	1,072	537.6	505.4	571.6	340	161.4	144.5	179.9
Douglas County	908	371.3	347.4	396.5	547	216.3	198.5	235.5
Dunn County	668	363.5	336.3	392.3	300	160.5	142.6	179.9
Eau Claire County	1,690	374.0	356.2	392.4	786	168.4	156.8	180.8
Florence County	127	377.6	313.6	452.2	63	179.1	137.4	231.4
Fond du Lac County	2,732	507.5	488.6	527.1	1,041	185.0	173.8	196.7
Forest County	307	447.5	397.7	502.4	133	187.6	156.6	223.6
Grant County	1,217	432.2	408.0	457.6	547	182.7	167.5	198.9
Green County	851	444.9	415.3	476.1	354	177.5	159.3	197.3
Green Lake County	650	512.5	473.2	554.5	264	195.2	172.0	221.0
Iowa County	468	385.9	351.6	422.6	215	177.8	154.8	203.4
Iron County	233	430.9	375.8	493.4	111	190.6	156.0	232.6
Jackson County	506	467.5	427.5	510.3	222	198.6	173.2	226.8
Jefferson County	1,738	447.9	427.0	469.6	745	190.4	176.9	204.6
Juneau County	765	501.3	466.1	538.5	347	218.5	196.0	243.1
Kenosha County	3,409	472.5	456.7	488.6	1,464	203.9	193.5	214.6
Kewaunee County	570	491.9	452.0	534.4	217	176.4	153.5	202.0
La Crosse County	2,723	513.6	494.4	533.3	1,002	184.8	173.5	196.7
Lafayette County	369	389.2	350.1	431.5	170	174.8	149.4	203.6
Langlade County	653	465.4	429.8	503.4	316	211.4	188.3	236.7
Lincoln County	958	521.3	488.5	555.9	358	185.9	166.9	206.6
Manitowoc County	2,282	469.2	450.0	489.0	893	173.0	161.7	184.9
Marathon County	2,942	442.4	426.5	458.8	1,162	171.0	161.3	181.2

		Incid	dence		Mortality				
	Total	Average	Confidence	Interval	Total	Average	Confidence	e Interval	
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper	
Marinette County	1,291	455.8	430.9	481.8	563	187.6	172.3	204.1	
Marquette County	589	576.7	530.0	626.9	230	219.3	191.6	250.4	
Menominee County	120	679.3	551.3	826.4	48	329.5	232.9	448.6	
Milwaukee County	23,071	505.8	499.3	512.4	9,758	209.4	205.3	213.7	
Monroe County	1,098	490.0	461.3	520.0	463	201.4	183.4	220.8	
Oconto County	999	472.7	443.7	503.1	416	194.3	176.1	214.1	
Oneida County	1,326	515.7	487.9	545.0	499	190.5	173.9	208.4	
Outagamie County	3,766	490.5	474.9	506.5	1,403	184.2	174.7	194.2	
Ozaukee County	2,178	476.1	456.1	496.7	797	178.1	165.9	191.0	
Pepin County	183	408.4	350.5	473.6	98	202.4	163.7	248.1	
Pierce County	532	340.7	312.0	371.2	284	188.0	166.5	211.3	
Polk County	881	354.8	331.6	379.2	470	184.5	168.1	202.2	
Portage County	1,353	435.2	412.2	459.1	487	156.5	142.8	171.1	
Price County	486	456.2	415.7	499.9	200	175.1	151.3	202.1	
Racine County	4,898	510.0	495.8	524.5	1,794	187.6	179.1	196.6	
Richland County	387	346.8	312.6	383.8	203	170.4	147.4	196.1	
Rock County	3,876	490.6	475.2	506.3	1,545	195.0	185.4	205.0	
Rusk County	452	456.2	414.5	501.2	193	180.4	155.4	208.7	
St Croix County	931	316.8	296.4	338.1	552	196.7	180.5	214.0	
Sauk County	1,473	472.3	448.4	497.3	592	181.9	167.4	197.3	
Sawyer County	450	397.2	361.0	436.4	243	215.8	189.4	245.3	
Shawano County	1,201	477.9	450.9	506.1	501	185.6	169.6	202.8	
Sheboygan County	3,003	490.3	472.9	508.3	1,164	183.4	172.9	194.3	
Taylor County	482	432.2	394.2	473.1	192	160.0	137.9	184.8	
Trempealeau County	792	483.6	449.9	519.2	305	174.9	155.4	196.2	
Vernon County	852	485.3	452.8	519.5	334	178.4	159.6	199.0	
Vilas County	784	449.4	417.3	483.6	318	177.3	157.9	198.9	
Walworth County	2,312	473.7	454.6	493.5	923	185.7	173.8	198.1	
Washburn County	456	411.6	374.0	452.3	232	197.4	172.6	225.2	
Washington County	2,896	485.1	467.5	503.3	1,046	179.7	168.9	190.9	
Waukesha County	10,099	524.8	514.5	535.2	3,335	177.1	171.2	183.3	
Waupaca County	1,523	480.0	455.9	505.0	689	199.7	184.9	215.5	
Waushara County	759	470.0	436.6	505.4	340	206.2	184.7	229.9	
Winnebago County	3,806	479.8	464.6	495.3	1,480	183.1	173.9	192.8	
Wood County	2,268	512.2	491.1	534.0	795	168.9	157.2	181.3	

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, as analyzed using SEFR\*Stat

Notes: Total cases exclude in situ cases except for in situ bladder cancer. Rates are per 100,000 population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.) County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

Table 1.4. Most Common Cancers, by Age and Sex, Wisconsin, 2000-2004

	Age in Years									
	Less than 15		15 to 24		25 to 44		45 to 64		65 and older	
Sex	Cancer Type	Rate	Cancer Type	Rate	Cancer Type	Rate	Cancer Type	Rate	Cancer Type	Rate
Male	Leukemia	4.8	Testis	6.9	Testis	14.2	Prostate	230.2	Prostate	888.5
	Brain & Other Nerv. Sys.	3.1	Hodgkin Lymphoma	4.4	Melanoma of the Skin	9.1	Lung and Bronchus	98.2	Lung and Bronchus	466.8
	Kidney & Renal Pelvis	1.0	Leukemia	2.8	Colon and Rectum	8.2	Colon and Rectum	69.1	Colon and Rectum	347.3
	Soft Tissue Inc. Heart	1.0	Brain & Other Nerv. Sys.	2.7	Non-Hodgkin Lymphoma	6.5	Urinary Bladder	32.7	Urinary Bladder	220.0
	Bones & Joints	0.9	Melanoma of the Skin	2.5	Brain & Other Nerv. Sys.	5.0	Kidney & Renal Pelvis	29.9	Non-Hodgkin Lymphoma	107.8
Female	Leukemia	4.5	Thyroid	5.4	Breast	55.8	Breast	256.6	Breast	440.7
	Brain & Other Nerv. Sys.	2.9	Hodgkin Lymphoma	4.7	Thyroid	18.6	Lung and Bronchus	77.1	Colon and Rectum	271.3
	Kidney & Renal Pelvis	1.1	Melanoma of the Skin	3.9	Cervis Uteri	13.2	Corpus & Uterus, NOS	58.6	Lung and Bronchus	260.2
	Soft Tissue Inc. Heart	0.8	Brain & Other Nerv. Sys.	2.0	Melanoma of the Skin	12.6	Colon and Rectum	49.5	Corpus & Uterus, NOS	92.2
	Bones & Joints	0.8	Cervis Uteri	1.8	Colon and Rectum	7.7	Ovary	28.1	Non-Hodgkin Lymphoma	80.9

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are based on five-year average age-specific incidence per 100,000 population and show the five cancers with the highest age-specific rates for each age group.

Table 1.5. Most Common Causes of Cancer Death, by Age and Sex, Wisconsin, 2000-2004

					Age in Years					
	Less than 15		15 to 24		25 to 44		45 to 64		65 and older	
Sex	Cancer Type	Rate	Cancer Type	Rate	Cancer Type	Rate	Cancer Type	Rate	Cancer Type	Rate
Male	Leukemia	0.8	Leukemia	1.0	Lung and Bronchus	2.8	Lung and Bronchus	63.9	Lung and Bronchus	390.5
	Brain & Other Nerv. Sys.	0.6	Brain & Other Nerv. Sys.	0.9	Brain & Other Nerv. Sys.	2.7	Colon and Rectum	18.2	Prostate	205.5
	Endocrine System Excl. Thyroid	0.3	Non-Hodgkin Lymphoma	0.7	Colon and Rectum	1.6	Pancreas	13.5	Colon and Rectum	140.7
	Bones & Joints	0.2	Soft Tissue Inc. Heart	0.4	Leukemia	1.6	Esophagus	11.7	Pancreas	71.3
	Soft Tissue Inc. Heart	0.1	Bones & Joints	0.3	Melanoma of the Skim	1.4	Non-Hodgkin Lymphoma	8.6	Leukemia	62.7
Female	Leukemia	0.7	Leukemia	0.4	Breast	6.5	Lung and Bronchus	47.7	Lung and Bronchus	205.4
	Brain & Other Nerv. Sys.	0.6	Brain & Other Nerv. Sys.	0.4	Lung and Bronchus	3.3	Breast	38.2	Breast	119.2
	Soft Tissue Inc. Heart	0.2	Bones & Joints	0.3	Cervix Uteri	1.2	Ovary	12.3	Colon and Rectum	110.9
	Endocrine System Excl. Thymus	0.2	Soft Tissue Inc. Heart	0.3	Leukemia	1.2	Colon and Rectum	12.0	Pancreas	62.3
	Kidney and Renal Pelvis	0.1	Non-Hodgkin Lymphoma	0.3	Colon and Rectum	1.2	Pancreas	9.6	Ovary	46.8

Source: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Note: Rates are based on five-year average age-specific mortality per 100,000 population and show the five cancers with the highest age-specific rates for each age group.

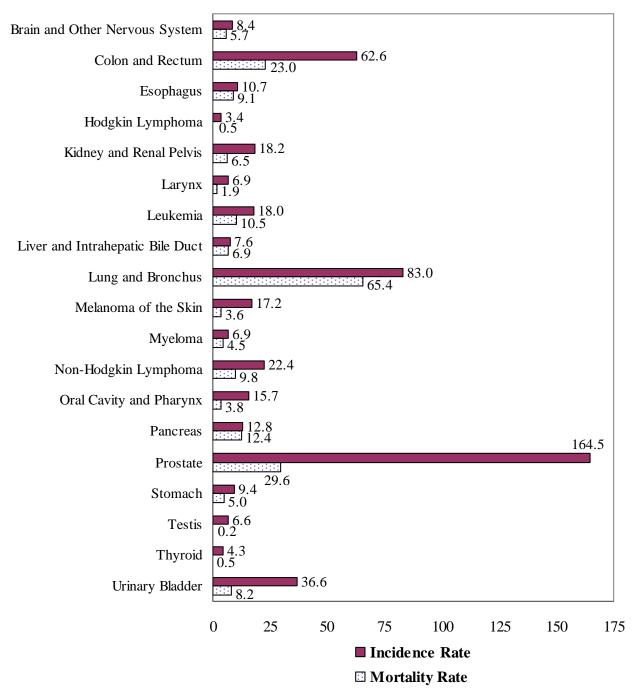


Figure 1.7. Burden of Cancer Incidence and Mortality Among Wisconsin Males, 2000 - 2004

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Note: Rates are age-adjusted to the 2000 U.S. standard population and show the five-year average annual rate of incidence and mortality per 100,000 Wisconsin males.

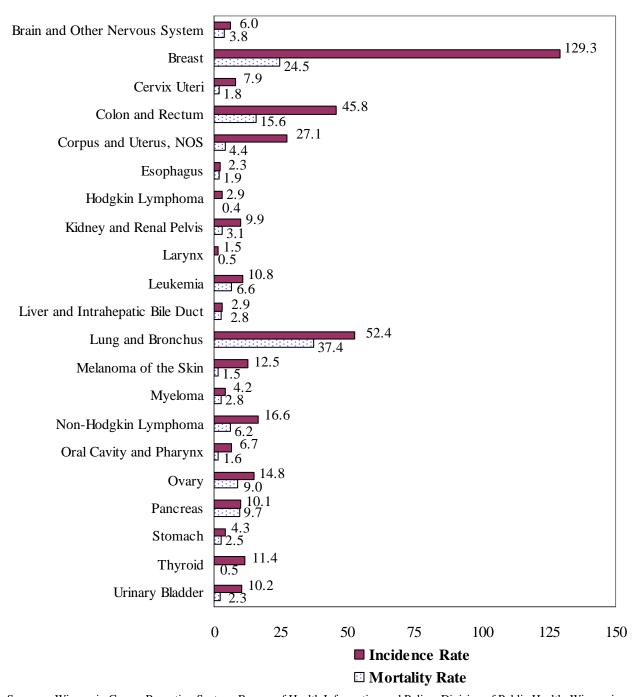


Figure 1.8. Burden of Cancer Incidence and Mortality Among Wisconsin Females, 2000 - 2004

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Note: Rates are age-adjusted to the 2000 U.S. standard population and show the five-year average annual rate of incidence and mortality per 100,000 Wisconsin females.

# **Chapter 2: Breast Cancer (Female)**

#### **Incidence**

During 2000-2004, breast cancer was the most commonly diagnosed cancer among Wisconsin women (Figure 1.8). Each year, approximately 3,900 women were diagnosed with this disease (Table 2.1).

Breast cancer incidence increased dramatically with age. Compared to women aged 35-39, those aged 65-69 were almost eight times more likely to be diagnosed with breast cancer (67.0 and 518.9 per 100,000 age-specific female population, respectively) (Figure 2.3).

During 2000-2004, almost two-thirds of breast cancer cases (62%) were diagnosed at an early (localized) stage (Figure 2.4).

White women were more likely to be diagnosed with breast cancer (129.6 per 100,000) than women in other racial and ethnic groups. African-American women had the second highest incidence rate of breast cancer (116.1 per 100,000), followed by American Indian women (112.2 per 100,000), Hispanic/Latina women (91.4 per 100,000), and Asian/Pacific Islander women (73.3 per 100,000) (Figure 2.5).

#### **Mortality**

Breast cancer was the second leading cause of female cancer deaths (second only to lung cancer) in Wisconsin (Figure 1.8). Approximately 788 women died of breast cancer each year from 2000 through 2004 (Table 2.2).

Breast cancer mortality rates vary between racial and ethnic groups. In 2000-2004, African American women had the highest mortality rate (28.6 per 100,000), followed by white women (24.3 per 100,000), American Indian women (18.4 per 100,000) and Asian /Pacific Islander women (11.6 per 100,000). Hispanic/Latina women (of any race) experienced the lowest mortality rate, 7.1 per 100,000 female population (Figure 2.6).

Wisconsin's female breast cancer mortality rate in 2004 (23.4 per 100,000) was similar to the national rate (24.4 per 100,000) (Figure 2.2).

Table 2.1. Female Breast Cancer Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), Wisconsin, 2000 - 2004

Year of	Number	Age-Adj.	
Diagnosis	of Cases	Rate	APC
Annual Average 2000-2004	3,906	129.3	-5.2%
2000	4,118	140.3	N/A
2001	4,174	140.1	N/A
2002	3,918	129.8	N/A
2003	3,753	123.1	N/A
2004	3,566	114.7	N/A

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin

Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin female population and are age-adjusted to the 2000 U.S. standard population. Annual

Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

Table 2.2. Female Breast Cancer Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), Wisconsin, 2000 - 2004

Year of	Number	Age-Adj.	
Death	of Deaths	Rate	APC
Annual Average 2000-2004	788	24.5	-2.3%
2000	788	25.2	N/A
2001	821	25.6	N/A
2002	790	24.5	N/A
2003	769	23.7	N/A
2004	773	23.4	N/A

Source: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Note: Rates are per 100,000 Wisconsin female population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

150 Rate per 100,000 Female 125 100 75 50 2000 2001 2002 2003 2004 140.3 140.1 129.8 123.1 ← Wis. Females 114.7 - U.S. Females 135.8 137.4 133.9 124.6 124.3

Figure 2.1. Female Breast Cancer, Age-Adjusted Incidence Rates, Wisconsin and United States, 2000 - 2004

# Year of Diagnosis

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 female population, and are age-adjusted to the 2000 U.S. standard population.

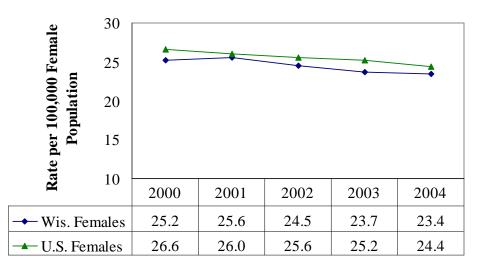


Figure 2.2. Female Breast Cancer, Age-Adjusted Mortality Rates, Wisconsin and United States, 2000 - 2004

#### Year of Death

Sources: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat; and Surveillance,

Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 female population, and are age-adjusted to the 2000 U.S. standard population.

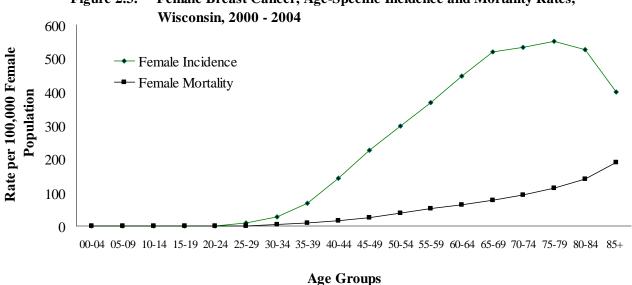


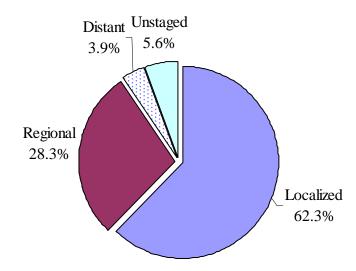
Figure 2.3. Female Breast Cancer, Age-Specific Incidence and Mortality Rates,

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality

file, as analyzed using SEER\*Stat.

Rates are per 100,000 female population (2000-2004) for each age group. Note:

Figure 2.4. Female Breast Cancer, Stage of Disease at Diagnosis, Wisconsin, 2000 - 2004



Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Source:

Department of Health and Family Services.

Note: See Definitions, page 131, for definition of stage of disease at diagnosis.

Rate Per 100,000 Female 150 Population 125 100 75 50 Females White
 White
 White
 Note
 Not
 Not 129.6 116.1 ■ Af. Am. 112.2 Am. Ind. 73.3 ■ Asian/PI 91.4 ☐ Hisp./Lat.

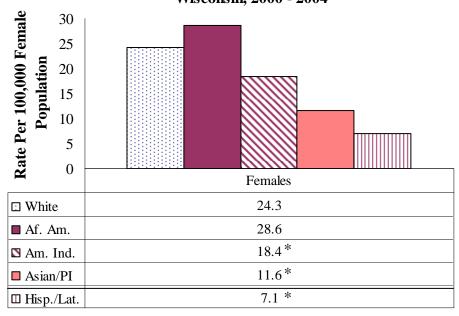
Figure 2.5. Female Breast Cancer, Age-Adjusted Incidence Rates, by Race and Ethnicity, Wisconsin, 2000 - 2004

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin

Department of Health and Family Services.

Notes: Rates are per 100,000 female population in each group and are age-adjusted to the 2000 U.S. standard population. Race categories are not mutually exclusive from the Hispanic/Latino origin category.

Figure 2.6. Female Breast Cancer, Age-Adjusted
Mortality Rates, by Race and Ethnicity,
Wisconsin, 2000 - 2004



Source: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Notes: Rates are per 100,000 female population in each group and are age-adjusted to the 2000 U.S. standard population.

Race categories are not mutually exclusive from the Hispanic/Latino origin category.

Rate based on small number (fewer than 20 deaths) for the five-year period.

Table 2.3. Female Breast Cancer Incidence and Mortality: Number of Cases and Deaths, Average Age-Adjusted Rates and Confidence Intervals, by County, Wisconsin, 2000-2004								
Avera	ge Age-Adj			dence Inte	ervals, by C			0-2004
		Incid				Mort		
	Total	Average	Confidence		Total	Average	Confidence	
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper
Adams County	57	79.1	59.2	104.5	21	30.4	18.5	48.1
Ashland County	61	125.4	95.4	162.2	13	23.1	11.9	41.1
Barron County	157	107.3	90.9	126.1	36	22.8	15.8	32.1
Bayfield County	41	81.5	58.1	112.1	11	20.4	10.1	38.3
Brown County	789	136.1	126.7	146.0	128	22.1	18.4	26.3
Buffalo County	45	102.9	74.7	139.0	10	21.0	9.8	40.6
Burnett County	58	98.7	74.1	130.0	17	26.4	15.2	44.3
Calumet County	134	128.6	107.6	152.4	18	17.2	10.2	27.2
Chippewa County	200	119.0	102.8	137.0	44	25.1	18.2	34.0
Clark County	139	134.2	112.0	159.6	18	14.5	8.3	24.1
Columbia County	220	141.7	123.5	162.1	40	23.8	16.9	32.7
Crawford County	76	140.4	110.1	177.0	12	19.6	9.8	36.1
Dane County	1,467	140.5	133.3	147.9	285	27.1	24.0	30.5
Dodge County	291	120.8	107.2	135.8	83	31.1	24.6	38.8
Door County	196	195.7	168.7	226.4	27	21.3	13.9	32.3
Douglas County	103	81.3	66.2	99.0	22	16.3	10.1	25.2
Dunn County	103	107.2	87.3	130.3	18	17.6	10.3	28.1
Eau Claire County	274	113.5	100.3	127.9	54	20.9	15.6	27.5
Florence County	19	119.3	71.4	190.8	2	12.7	1.5	52.7
Fond du Lac County	355	122.2	109.6	135.9	78	24.5	19.2	30.9
Forest County	40	115.5	81.6	159.9	5	14.2	4.6	35.9
Grant County	154	105.7	89.2	124.5	48	28.2	20.5	38.2
Green County	122	122.8	101.8	147.1	22	18.4	11.4	28.7
Green Lake County	68	107.8	82.9	138.3	17	24.7	14.0	41.2
Iowa County	68	107.8	83.6	136.9	16	26.3	15.0	42.8
Iron County	19	69.2	40.3	115.1	5	15.8	5.0	45.5
Jackson County	68	128.7	99.7	163.9	18	31.3	18.3	50.6
Jefferson County	220	105.2	91.7	120.2	44	19.3	13.9	26.1
Juneau County	86	110.8	88.1	137.9	26	31.7	20.5	47.2
Kenosha County	469	118.0	107.5	129.2	116	28.0	23.1	33.6
Kewaunee County	74	125.0	97.8	157.5	15	22.7	12.4	38.7
La Crosse County	458	158.2	143.8	173.6	87	28.0	22.3	34.7
Lafayette County	62	125.4	95.8	161.8	14	25.4	13.6	44.2
Langlade County	85	120.7	95.8	150.8	16	18.6	10.2	32.2
Lincoln County	135	142.5	119.1	169.6	19	18.0	10.7	29.0
Manitowoc County	293	116.7	103.5	131.3	66	23.1	17.7	29.8
Marathon County	464	130.4	118.7	143.0	83	22.6	17.9	28.1

		Incid	ence			Mortality		
	Total	Average	Confidence		Total	Average	Confidence	
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper
Marinette County	170	116.4	99.1	136.0	37	21.0	14.6	29.8
Marquette County	70	136.6	105.6	174.9	12	23.5	11.9	43.1
Menominee County	15	144.6	80.3	241.3	3	27.9	5.7	85.8
Milwaukee County	3,348	131.4	126.9	136.0	732	26.6	24.6	28.6
Monroe County	173	148.8	127.2	173.1	36	28.3	19.6	39.6
Oconto County	140	134.3	112.8	158.8	35	31.6	22.0	44.4
Oneida County	185	141.7	121.6	164.6	38	28.8	20.1	40.4
Outagamie County	595	141.1	129.9	153.0	90	20.9	16.8	25.8
Ozaukee County	390	154.7	139.6	171.0	71	28.1	21.9	35.6
Pepin County	16	73.4	41.4	121.7	5	18.6	5.7	48.2
Pierce County	75	87.7	68.8	110.1	23	26.9	17.0	40.5
Polk County	93	70.9	57.0	87.4	33	24.0	16.4	34.2
Portage County	211	127.2	110.5	145.7	41	23.2	16.5	31.7
Price County	61	109.7	83.2	143.0	9	16.1	6.9	33.3
Racine County	759	145.1	135.0	155.9	117	21.4	17.7	25.7
Richland County	42	76.3	54.4	104.4	16	24.6	13.7	41.7
Rock County	543	126.9	116.4	138.1	132	30.3	25.3	36.0
Rusk County	59	119.3	90.1	155.5	9	15.7	6.9	32.2
St Croix County	124	75.3	62.4	89.9	22	13.4	8.3	20.5
Sauk County	252	153.1	134.5	173.7	56	30.2	22.6	39.6
Sawyer County	57	101.2	76.3	132.5	17	30.2	17.3	50.1
Shawano County	145	115.7	97.3	136.8	29	21.6	14.2	31.7
Sheboygan County	363	113.7	102.2	126.3	80	22.3	17.5	28.0
Taylor County	55	99.5	74.6	130.4	10	14.7	6.7	28.6
Trempealeau County	109	130.1	106.2	158.2	18	22.1	12.9	35.7
Vernon County	137	154.0	128.8	182.9	29	29.9	19.8	43.7
Vilas County	132	151.1	125.3	181.7	26	29.6	18.7	45.7
Walworth County	302	116.6	103.7	130.8	64	23.3	17.9	30.0
Washburn County	52	96.4	71.4	128.1	11	18.1	8.9	34.3
Washington County	406	125.0	113.1	137.8	79	23.2	18.4	29.0
Waukesha County	1,567	147.7	140.4	155.2	281	25.8	22.9	29.1
Waupaca County	212	136.5	118.4	156.8	39	20.5	14.4	28.7
Waushara County	95	114.2	91.9	141.0	23	26.1	16.3	40.5
Winnebago County	556	130.6	119.9	142.1	107	23.1	18.9	28.1
Wood County	350	149.6	134.1	166.6	57	22.2	16.6	29.1

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, as analyzed using SEER\*Stat

Notes: Rates are per 100,000 female population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.)

County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

# **Chapter 3: Cervical Cancer**

#### **Incidence**

During 2000-2004, cervical cancer was the 13th most frequently diagnosed cancer among Wisconsin women (Figure 1.8), and the fourth most frequent cancer among women aged 25-44 (Table 1.4). Each year, approximately 220 women were diagnosed with this disease (Table 3.1).

Cervical cancer incidence rates vary between racial and ethnic groups. Among the racial groups, African American women had the highest incidence rate (15.0 per 100,000 female population), Asian/Pacific Islander women had the second highest incidence rate (13.6 per 100,000), followed by American Indian women (11.9 per 100,000) and white women (7.4 per 100,000). Hispanic/Latina women (of any race) also experienced a relatively high incidence rate, 13.9 per 100,000 (Figure 3.5).

During 2000-2004, over half of all cervical cancer cases (52%) were diagnosed at an early (localized) stage (Figure 3.4).

#### **Mortality**

Cervical cancer was the 15th most frequent cause of cancer mortality among Wisconsin women (Figure 1.8), and the third most frequent cause of cancer mortality among Wisconsin women aged 25-44 (Table 1.5). An average of 55 women died of cervical cancer each year from 2000 through 2004 (Table 3.2).

Wisconsin's cervical cancer mortality rate was lower than the national rate every year during the 2000-2004 period (Figure 3.2).

Although cervical cancer mortality rates are low in all racial groups, there are some differences. Asians/Pacific Islanders had the highest mortality rate (8.0 per 100,000) and African Americans, the second highest (4.8 per 100,000) (Figure 3.6). Caution should be used as these rates are based on small numbers.

Table 3.1. Cervical Cancer Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), Wisconsin, 2000-2004

Year of	Number	Age-Adj.	
Diagnosis	of Cases	Rate	APC
Annual Average 2000-2004	220	7.9	-11.4%
2000	306	11.2	N/A
2001	213	7.7	N/A
2002	193	7.0	N/A
2003	190	6.6	N/A
2004	196	7.0	N/A

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin female population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

Table 3.2. Cervical Cancer Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), Wisconsin, 2000-2004

Year of	Number	Age-Adj.	
Death	of Deaths	Rate	APC
Annual Average 2000-2004	55	1.8	1.7%
2000	54	1.9	N/A
2001	54	1.8	N/A
2002	49	1.7	N/A
2003	57	1.8	N/A
2004	63	2.0	N/A

Source: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Note: Rates are per 100,000 Wisconsin female population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete description.

14 Rate per 100,000 Female 12 10 8 6 4 2 0 2000 2001 2002 2003 2004 7.7 7.0 Wis. Females 11.2 7.0 6.6 7.2 7.7 7.9 7.3 7.0 - U.S. Females

Figure 3.1. Cervical Cancer, Age-Adjusted Incidence Rates, Wisconsin and United States, 2000 - 2004

# Year of Diagnosis

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 female population, and are age-adjusted to the 2000 U.S. standard population.

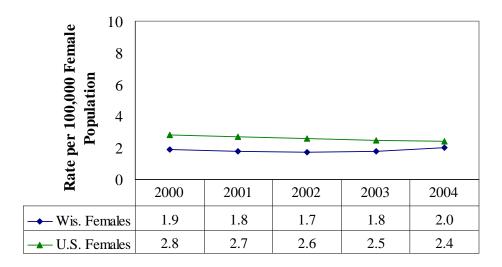


Figure 3.2. Cervical Cancer, Age-Adjusted Mortality Rates, Wisconsin and United States, 2000 - 2004

#### Year of Death

Sources: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat; and Surveillance,

Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 female population, and are age-adjusted to the 2000 U.S. standard population.

16
14
12
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2
00-04 05-09 10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75-79 80-84 85+

Age Groups

Figure 3.3. Cervical Cancer, Age-Specific Incidence and Mortality Rates, Wisconsin, 2000 - 2004

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality

file, analyzed using SEER\*Stat.

Note: Rates are per 100,000 female population (2000-2004) for each age group.

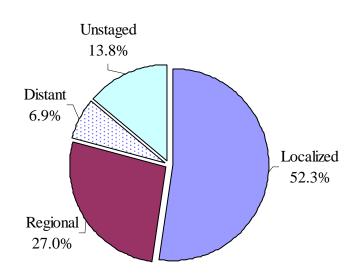


Figure 3.4. Cervical Cancer, Stage of Disease at Diagnosis, Wisconsin, 2000 - 2004

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin

Department of Health and Family Services.

Note: See Definitions, page 131, for definition of stage of disease at diagnosis.

2000 - 2004 Rate Per 100,000 Female 16 14 12 Population 10 8 6 4 2 0 Females White
 7.4 ■ Af. Am. 15.0 N Am. Ind. 11.9\* ■ Asian/PI 13.6\* 13.9 □ Hisp./Lat.

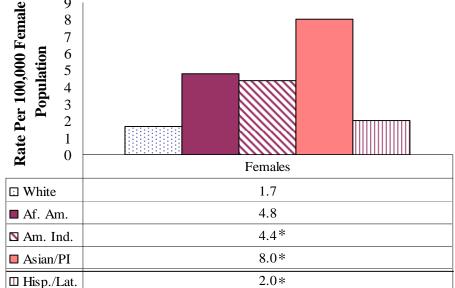
Figure 3.5. Cervical Cancer, Age-Adjusted Incidence Rates, by Race and Ethnicity, Wisconsin,

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Rates are cases per 100,000 female population in each group and are age-adjusted to the 2000 U.S. standard population. Notes: Race categories are not mutually exclusive from the Hispanic/Latino origin category.

Rate based on small number (fewer than 20 cases) for the five-year period.

Figure 3.6. Cervical Cancer, Age-Adjusted Mortality Rates, by Race and Ethnicity, Wisconsin, 2000 - 2004 9 8 7 6



Source: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat. Rates are deaths per 100,000 female population in each group and are age-adjusted to the 2000 U.S. standard Notes: population. Race categories are not mutually exclusive from the Hispanic/Latino origin category.

Rate based on small number (fewer than 20 deaths) for the five-year period.

Table 3.3. Cervical Cancer Incidence and Mortality: Number of Cases and Deaths, Average Age-Adjusted Rates and Confidence Intervals, by County, Wisconsin, 2000-2004								
<u> </u>			lence	Í			tality	
	Total	Average	Confidence	e Interval	Total	Average	Confidence	e Interval
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper
Adams County	8	14.4	6.0	29.7	4	5.4	1.4	16.2
Ashland County	4	8.9	2.4	23.4	1	2.3	0.1	12.9
Barron County	9	9.0	4.1	16.9	2	1.6	0.2	6.1
Bayfield County	3	5.9	1.2	19.5	0	0.0	0.0	10.8
Brown County	48	8.2	6.1	10.9	7	1.2	0.5	2.5
Buffalo County	6	16.7	5.9	37.2	2	5.0	0.6	19.1
Burnett County	5	14.1	4.4	32.9	0	0.0	0.0	10.0
Calumet County	5	4.7	1.5	11.0	1	0.8	0.0	5.1
Chippewa County	11	7.6	3.8	13.6	1	0.7	0.0	3.8
Clark County	4	5.1	1.4	13.0	3	3.6	0.7	10.5
Columbia County	16	12.2	7.0	19.9	2	1.1	0.1	4.6
Crawford County	3	7.8	1.6	22.5	2	4.3	0.5	16.1
Dane County	84	7.2	5.7	8.9	10	0.9	0.4	1.6
Dodge County	6	2.8	1.0	6.1	3	1.2	0.2	3.8
Door County	8	12.5	5.1	25.1	2	2.0	0.2	8.6
Douglas County	7	5.9	2.4	12.4	2	1.3	0.1	5.4
Dunn County	5	5.6	1.8	13.0	2	1.6	0.1	6.8
Eau Claire County	6	2.5	0.9	5.5	2	0.9	0.1	3.3
Florence County	1	7.2	0.2	45.2	0	0.0	0.0	33.1
Fond du Lac County	29	11.5	7.7	16.5	2	0.6	0.1	2.4
Forest County	1	2.5	0.1	18.8	1	5.2	0.1	25.9
Grant County	12	10.8	5.5	18.9	4	3.0	0.8	7.9
Green County	11	12.1	5.9	21.9	2	1.6	0.2	6.9
Green Lake County	1	1.7	0.0	10.6	1	2.0	0.0	11.4
Iowa County	3	5.3	1.1	15.5	1	2.1	0.1	10.7
Iron County	1	3.0	0.1	29.1	0	0.0	0.0	25.5
Jackson County	1	1.5	0.0	10.3	2	2.9	0.4	12.4
Jefferson County	21	10.9	6.8	16.7	2	1.0	0.1	3.6
Juneau County	10	15.9	7.4	29.5	1	1.6	0.0	9.1
Kenosha County	51	13.1	9.7	17.2	9	2.4	1.1	4.5
Kewaunee County	3	7.0	1.4	19.6	1	1.5	0.0	9.8
La Crosse County	12	4.6	2.4	8.0	2	0.6	0.1	2.5
Lafayette County	3	8.2	1.7	23.5	2	5.4	0.7	19.1
Langlade County	3	5.2	1.1	15.8	1	1.4	0.0	9.4
Lincoln County	3	4.0	0.8	12.0	3	2.4	0.5	8.5
Manitowoc County	14	6.3	3.4	10.7	6	2.2	0.8	5.1
Marathon County	21	6.4	3.9	9.8	8	2.2	0.9	4.4

		Incic	lence			Mor	tality	
	Total	Average	Confidenc		Total	Average	Confidence	
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper
Marinette County	6	5.0	1.7	11.4	2	1.3	0.2	5.6
Marquette County	1	3.3	0.1	17.3	3	8.3	1.7	24.4
Menominee County	3	44.2	7.4	127.5	1	9.9	0.3	58.8
Milwaukee County	228	9.5	8.3	10.8	78	3.1	2.4	3.9
Monroe County	6	5.8	2.1	12.6	4	4.1	1.1	10.3
Oconto County	10	10.0	4.7	18.8	6	5.6	2.0	12.6
Oneida County	15	13.5	7.4	22.9	3	2.8	0.6	8.8
Outagamie County	30	7.0	4.7	10.0	4	0.9	0.2	2.3
Ozaukee County	19	8.5	5.1	13.3	5	1.9	0.6	4.6
Pepin County	2	8.9	0.7	36.8	1	4.6	0.1	28.6
Pierce County	9	10.6	4.8	20.2	1	0.9	0.0	5.9
Polk County	11	9.1	4.5	16.5	3	2.6	0.5	7.7
Portage County	9	5.4	2.5	10.4	1	0.4	0.0	2.9
Price County	4	9.4	2.5	25.2	0	0.0	0.0	10.6
Racine County	35	7.1	5.0	9.9	5	1.0	0.3	2.4
Richland County	5	10.4	3.3	24.8	0	0.0	0.0	8.2
Rock County	34	8.4	5.8	11.7	8	1.9	0.8	3.9
Rusk County	0	0.0	0.0	9.9	0	0.0	0.0	9.9
St Croix County	17	9.7	5.7	15.7	2	1.2	0.1	4.2
Sauk County	14	9.6	5.2	16.3	2	1.1	0.1	4.4
Sawyer County	4	8.9	2.4	23.5	3	6.9	1.3	21.0
Shawano County	5	5.1	1.6	11.8	1	0.8	0.0	4.9
Sheboygan County	18	5.7	3.3	9.1	7	2.1	0.8	4.4
Taylor County	0	0.0	0.0	7.7	0	0.0	0.0	7.7
Trempealeau County	9	12.1	5.4	23.4	2	2.8	0.3	10.2
Vernon County	6	6.7	2.4	15.3	0	0.0	0.0	5.2
Vilas County	5	7.6	2.1	19.7	1	0.9	0.0	9.0
Walworth County	21	8.5	5.2	13.0	14	5.1	2.8	8.8
Washburn County	4	8.8	2.2	23.9	2	3.2	0.4	14.3
Washington County	22	7.2	4.5	10.9	4	1.3	0.3	3.4
Waukesha County	56	5.7	4.3	7.4	6	0.6	0.2	1.3
Waupaca County	9	7.0	3.2	13.2	1	0.3	0.0	3.2
Waushara County	6	9.2	3.1	21.0	3	3.0	0.6	10.8
Winnebago County	20	5.1	3.1	7.8	7	1.8	0.7	3.6
Wood County	16	9.2	5.3	15.0	3	1.2	0.2	3.8

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, as analyzed using SEER\*Stat

Notes: Rates are per 100,000 female population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.)

County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

# **Chapter 4: Cancers of the Colon and Rectum**

### Incidence

During 2000-2004, cancer of the colon and rectum (colorectal cancer) was the third most commonly diagnosed cancer for both males and females in Wisconsin (Figures 1.7 and 1.8).

Incidence increases dramatically with age for both sexes. Colorectal cancer was over 16 times more common among men aged 65-69 compared to men aged 40-44, and 11 times more common among women aged 65-69 compared to women aged 40 to 44 (Figure 4.3).

Approximately 37 percent of colon and rectum cancers were diagnosed at the early (localized) stage; more than half (53%) were diagnosed at a regional or distant stage and 10 percent were unstaged (Figure 4.4).

# **Mortality**

Cancer of the colon and rectum was the third leading cause of cancer-related mortality among both men and women in Wisconsin during 2000-2004 (Figures 1.7 and 1.8). It resulted in nearly 1,100 deaths annually and accounted for 10 percent of all cancer-related mortality.

Death rates from colon and rectum cancers declined during the 2000-2004 period by an annual average of 5.7 percent for males and 4.5 percent for females (Table 4.2).

Rates of colon and rectum cancer vary by race and ethnicity, with African Americans and American Indians having the highest rates of both incidence and mortality (Figures 4.5 and 4.6). The Hispanic/Latino mortality rate for colorectal cancer (8.7 per 100,000) was lower than rates in all four racial groups.

Table 4.1. Colorectal Cancer Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 2000 - 2004

		Male			Female			Total	
Year of	Number	Age-Adj.		Number	Age-Adj.		Number	Age-Adj.	
Diagnosis	of Cases	Rate	APC	of Cases	Rate	APC	of Cases	Rate	APC
Annual Avg. 2000-2004	1,535	62.6	-6.0%	1,500	45.8	-3.3%	3,035	53.3	-4.6%
2000	1,675	70.5	N/A	1,577	49.3	N/A	3,252	58.6	N/A
2001	1,571	65.4	N/A	1,513	46.9	N/A	3,084	54.9	N/A
2002	1,557	63.6	N/A	1,470	44.8	N/A	3,027	53.2	N/A
2003	1,530	61.3	N/A	1,539	46.7	N/A	3,069	53.1	N/A
2004	1,344	53.0	N/A	1,399	41.8	N/A	2,743	46.8	N/A

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin

Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual

Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

Table 4.2. Colorectal Cancer Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 2000 - 2004

		Male			Female			Total	-
Year of	Number	Age-Adj.		Number	Age-Adj.		Number	Age-Adj.	
Death	of Deaths	Rate	APC	of Deaths	Rate	APC	of Deaths	Rate	APC
Annual Avg. 2000-2004	545	23.0	-5.7%	544	15.6	-4.5%	1,090	18.8	-4.9%
2000	581	25.5	N/A	595	17.3	N/A	1,176	20.8	N/A
2001	582	25.1	N/A	546	16.0	N/A	1,128	19.7	N/A
2002	530	22.4	N/A	535	15.6	N/A	1,065	18.4	N/A
2003	536	22.2	N/A	538	15.1	N/A	1,074	18.2	N/A
2004	498	20.2	N/A	508	14.1	N/A	1,006	16.8	N/A

Source: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual

Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

80 Rate per 100,000 Population 60 40 20 2000 2001 2002 2003 2004 70.5 Wis. Males 65.4 63.6 61.3 53.0 49.3 - Wis. Females 46.9 44.8 46.7 41.8 ··· • U.S. Males 63.5 62.5 60.6 58.5 56.7 46.5 45.9 46.1 43.0 41.7 ▲ U.S. Females

Figure 4.1. Colorectal Cancer, Age-Adjusted Incidence Rates, by Sex, Wisconsin and United States, 2000 - 2004

# Year of Diagnosis

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

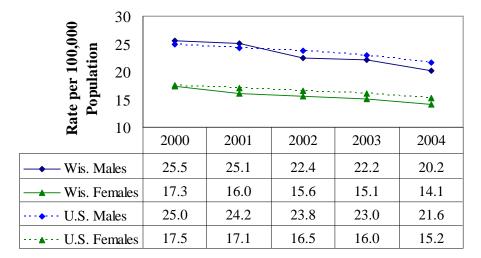


Figure 4.2. Colorectal Cancer, Age-Adjusted Mortality Rates, by Sex, Wisconsin and United States, 2000 - 2004

# Year of Death

Sources: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

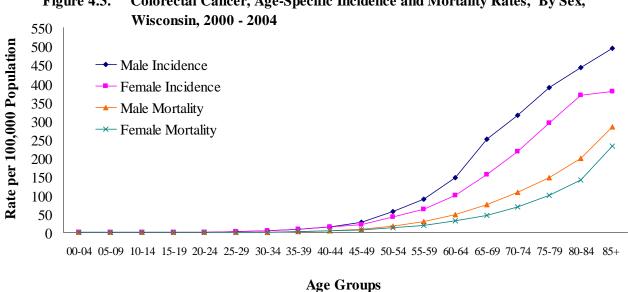


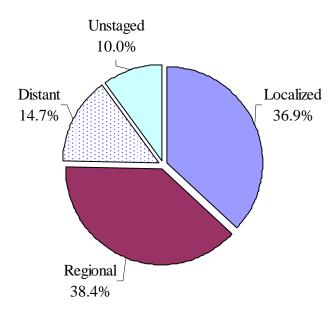
Figure 4.3. Colorectal Cancer, Age-Specific Incidence and Mortality Rates, By Sex,

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality

file, analyzed using SEER\*Stat.

Rates are per 100,000 population (2000-2004) for each age group and sex. Note:

Figure 4.4. Colorectal Cancer, Stage of Disease at Diagnosis, Wisconsin, 2000 - 2004



Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin

Department of Health and Family Services.

See Definitions, page 131, for definition of stage of disease at diagnosis. Note:

2000 - 2004 90 80 Rate Per 100,000 Population 70 60 50 40 30 20 Males Females Total 62.0 45.1 52.6 White
 White
 White
 Note
 Not
 Not 75.4 57.5 64.6 ■ Af. Am. 86.7 45.5 61.5 Nam. Ind. ■ 27.4 34.7 31.9 Asian/PI 53.5 35.4 44.1 ☐ Hisp./Lat.

Figure 4.5. Colorectal Cancer, Age-Adjusted Incidence Rates, by Race, Ethnicity and Sex, Wisconsin, 2000 - 2004

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin

Department of Health and Family Services.

Notes: Rates are per 100,000 population in each group, and are age-adjusted to the 2000 U.S. standard population.

Race categories are not mutually exclusive from the Hispanic /Latino origin category.

2000 - 2004 45 40 Rate Per 100,000 35 Population 30 25 20 15 10 5 Males Females Total 22.8 ☑ White 15.4 18.6 31.7 21.3 25.2 ■ Af. Am. 40.9\* 18.7\* 26.6 Nama Ind. ■ 13.8\*  $10.8^*$ 11.8 Asian/PI 10.4\* 6.6\* 8.7 □ Hisp./Lat.

Figure 4.6. Colorectal Cancer, Age-Adjusted Mortality
Rates, by Race, Ethnicity and Sex, Wisconsin,
2000 - 2004

Source: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Notes: Rates are per 100,000 population in each group, and are age-adjusted to the 2000 U.S. standard population.

Race categories are not mutually exclusive from the Hispanic /Latino origin category.

\* Rate based on small number (fewer than 20 deaths) for the five-year period.

Table 4.3. Color	ectal Cance	er Inciden	ce and Mor	tality: Nu	mber of Ca	ases and D	eaths, Ave	rage
Age-A	Adjusted Ra	ates and C	onfidence I	ntervals,	by County,	Wisconsin	n, 2000-200	4
		Incid	ence			Mort	ality	
	Total	Average	Confidence	e Interval	Total	Average	Confidenc	e Interval
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper
Adams County	58	37.5	28.4	49.2	25	16.9	10.8	25.5
Ashland County	55	52.9	39.6	69.4	23	22.0	13.8	33.6
Barron County	148	53.9	45.5	63.5	57	19.9	15.0	25.9
Bayfield County	59	59.1	44.9	76.8	25	25.4	16.4	38.1
Brown County	563	54.1	49.7	58.8	184	17.5	15.0	20.2
Buffalo County	37	40.7	28.6	56.6	14	15.2	8.3	26.1
Burnett County	47	39.4	28.8	53.2	30	25.0	16.8	36.5
Calumet County	119	64.1	53.1	76.7	41	21.9	15.7	29.7
Chippewa County	185	58.3	50.2	67.4	51	15.3	11.4	20.2
Clark County	96	47.4	38.2	58.1	42	18.8	13.4	25.8
Columbia County	180	59.0	50.7	68.4	59	18.6	14.1	24.1
Crawford County	55	51.5	38.8	67.5	21	19.6	12.1	30.3
Dane County	835	46.2	43.0	49.4	298	16.8	14.9	18.8
Dodge County	273	57.7	51.1	65.0	116	23.6	19.4	28.3
Door County	124	59.9	49.7	71.9	43	20.1	14.5	27.4
Douglas County	100	39.2	31.9	47.9	58	21.8	16.5	28.3
Dunn County	90	47.6	38.2	58.6	22	11.4	7.1	17.3
Eau Claire County	191	41.0	35.3	47.3	89	18.7	15.0	23.1
Florence County	8	20.8	9.0	44.5	5	13.8	4.5	35.7
Fond du Lac County	345	62.0	55.6	69.0	116	20.5	16.9	24.6
Forest County	44	61.4	44.4	83.5	17	22.6	13.1	37.3
Grant County	165	55.5	47.2	64.8	70	22.8	17.7	29.0
Green County	128	64.3	53.5	76.6	49	24.3	17.9	32.3
Green Lake County	74	54.4	42.5	68.9	29	19.4	12.9	28.5
Iowa County	60	49.5	37.7	63.8	33	27.3	18.8	38.5
Iron County	23	39.6	24.9	62.4	7	11.4	4.5	27.5
Jackson County	57	52.1	39.4	67.7	31	27.8	18.9	39.7
Jefferson County	208	53.2	46.2	61.0	86	21.4	17.1	26.5
Juneau County	94	60.4	48.7	74.2	36	22.1	15.5	30.9
Kenosha County	377	52.5	47.3	58.1	135	18.8	15.7	22.2
Kewaunee County	77	64.2	50.6	80.6	26	21.5	14.0	31.9
La Crosse County	313	57.9	51.7	64.8	104	18.6	15.2	22.6
Lafayette County	51	51.1	38.0	67.5	24	23.7	15.1	35.6
Langlade County	57	38.5	29.0	50.5	27	17.5	11.4	26.0
Lincoln County	132	67.4	56.3	80.3	33	17.0	11.7	24.2
Manitowoc County	257	50.1	44.1	56.8	85	16.1	12.8	20.0
Marathon County	304	44.9	40.0	50.3	104	15.1	12.3	18.3

		Incid	ence			Mort	ality	
	Total	Average	Confidence	e Interval	Total	Average	Confidence	e Interval
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper
Marinette County	154	52.7	44.6	61.9	60	19.5	14.8	25.3
Marquette County	51	49.5	36.6	66.0	15	14.8	8.2	25.0
Menominee County	15	68.8	37.4	116.9	3	29.2	5.2	80.4
Milwaukee County	2,589	55.7	53.6	57.9	954	20.1	18.9	21.4
Monroe County	138	61.1	51.3	72.3	43	18.2	13.1	24.6
Oconto County	123	56.6	47.0	67.7	50	23.3	17.3	30.8
Oneida County	164	60.7	51.7	71.0	43	16.0	11.6	21.9
Outagamie County	462	60.3	54.9	66.1	161	21.0	17.9	24.5
Ozaukee County	237	52.1	45.7	59.3	83	18.4	14.7	22.9
Pepin County	24	52.1	33.2	78.8	13	25.9	13.6	45.9
Pierce County	54	36.1	27.1	47.1	30	20.2	13.6	28.8
Polk County	101	39.7	32.3	48.3	49	18.6	13.7	24.7
Portage County	140	45.4	38.1	53.6	34	10.9	7.6	15.3
Price County	64	59.8	45.8	77.1	20	18.0	10.9	28.6
Racine County	507	53.1	48.6	58.0	177	18.4	15.8	21.4
Richland County	50	43.7	32.2	58.1	16	13.1	7.4	21.8
Rock County	414	52.1	47.2	57.4	148	18.5	15.6	21.7
Rusk County	58	57.7	43.7	75.2	12	10.6	5.4	19.4
St Croix County	97	32.7	26.4	40.0	57	20.3	15.3	26.3
Sauk County	183	56.9	48.9	65.9	51	15.2	11.3	20.1
Sawyer County	48	43.2	31.7	57.9	25	21.5	13.9	32.3
Shawano County	158	60.2	51.1	70.5	48	17.4	12.8	23.3
Sheboygan County	410	65.8	59.5	72.5	146	22.7	19.2	26.8
Taylor County	55	47.3	35.5	61.9	18	15.0	8.8	24.1
Trempealeau County	129	70.9	59.0	84.8	48	25.0	18.3	33.6
Vernon County	96	51.5	41.6	63.2	42	21.2	15.2	29.0
Vilas County	84	47.6	37.7	59.8	27	15.1	9.9	22.9
Walworth County	275	55.7	49.3	62.7	103	20.2	16.5	24.5
Washburn County	45	40.2	29.2	54.4	25	20.7	13.4	31.2
Washington County	304	51.7	46.0	57.9	101	17.5	14.2	21.2
Waukesha County	991	52.3	49.1	55.7	310	16.5	14.7	18.5
Waupaca County	178	53.6	45.9	62.3	66	17.5	13.5	22.4
Waushara County	96	58.7	47.4	72.1	34	20.1	13.9	28.6
Winnebago County	446	55.5	50.4	60.9	143	17.3	14.6	20.4
Wood County	249	53.7	47.2	60.9	79	16.0	12.6	20.0

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Notes: Rates are per 100,000 population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.)

County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

# **Chapter 5: Uterine Cancer**

### **Incidence**

During 2000-2004, uterine cancer (cancer of the uterus) was the fourth most common cancer diagnosed in Wisconsin women (Figure 1.8). Each year over 800 women were diagnosed with this disease (Table 5.1).

Generally, uterine cancer incidence increases with age. The rate increased sharply beginning at ages 40-44 and peaked at ages 65-69, with a decline at older ages (Figure 5.3).

During 2000-2004, 72 percent of all uterine cancer cases in Wisconsin were diagnosed at the local stage, and 22 percent at the regional and distant stage (Figure 5.4).

The incidence of uterine cancer was slightly higher in Wisconsin than nationally each year (Figure 5.1).

# **Mortality**

Uterine cancer was the eighth most frequent cause of cancer death for Wisconsin women (Figure 1.8). Approximately 140 women died of uterine cancer each year from 2000 through 2004 (Table 5.2).

African-American women had the highest mortality rate from uterine cancer (8.3 per 100,000) and Asian/Pacific Islanders had the lowest (1.6 per 100,000). For Hispanic/Latina women (of any race), the mortality rate was 2.3 per 100,000 (Figure 5.6).

Uterine cancer mortality increased directly with increasing age, so the highest mortality rate was among women aged 85 and older.

**Table 5.1.** Uterine Cancer Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), Wisconsin, 2000 - 2004

Year of	Number	Age-Adj.	
Diagnosis	of Cases	Rate	APC
Annual Average 2000-2004	817	27.1	-2.3%
2000	819	27.8	N/A
2001	838	28.2	N/A
2002	822	27.4	N/A
2003	814	26.8	N/A
2004	790	25.4	N/A

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin

Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin female population and are age-adjusted to the 2000 U.S. standard population. Annual

Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

**Table 5.2.** Uterine Cancer Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), Wisconsin, 2000-2004

Year of	Number	Age-Adj.	
Death	of Deaths	Rate	APC
Annual Average 2000-2004	143	4.4	-4.6%
2000	145	4.6	N/A
2001	152	4.6	N/A
2002	151	4.7	N/A
2003	142	4.2	N/A
2004	126	3.8	N/A

National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Rates are per 100,000 Wisconsin female population and are age-adjusted to the 2000 U.S. standard population. Annual Note:

Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

30 Rate per 100,000 Female 25 Population 20 15 10 2000 2001 2002 2003 2004 - Wis. Females 27.8 28.2 27.4 26.8 25.4 24.7 25.2 24.7 24.0 24.4 - U.S. Females

Figure 5.1. Uterine Cancer, Age-Adjusted Incidence Rates, Wisconsin and United States, 2000 - 2004

# Year of Diagnosis

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 female population, and are age-adjusted to the 2000 U.S. standard population.

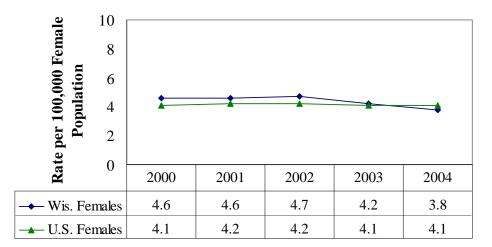


Figure 5.2. Uterine Cancer, Age-Adjusted Mortality Rates, Wisconsin and United States, 2000 - 2004

### Year of Death

Sources: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat; and Surveillance,

Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 female population, and are age-adjusted to the 2000 U.S. standard population.

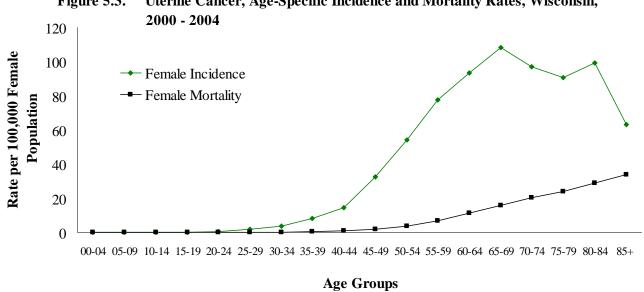


Figure 5.3. Uterine Cancer, Age-Specific Incidence and Mortality Rates, Wisconsin,

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality

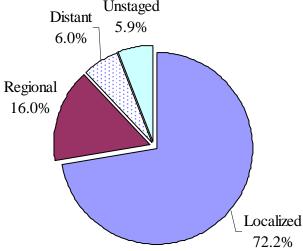
file, analyzed using SEER\*Stat.

Figure 5.4.

Rates are per 100,000 female population (2000-2004) for each age group. Note:

Unstaged

Uterine Cancer, Stage of Disease at Diagnosis, 2000 - 2004



Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin

Department of Health and Family Services.

See Definitions, page 131, for definition of stage of disease at diagnosis. Note:

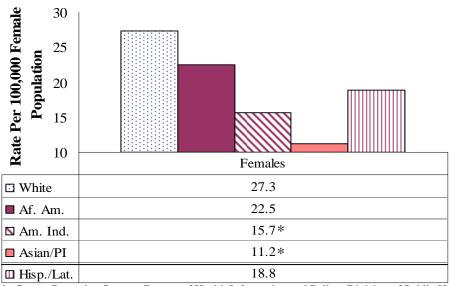


Figure 5.5. Uterine Cancer, Age-Adjusted Incidence Rates, by Race and Ethnicity, Wisconsin, 2000 - 2004

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Notes: Rates are per 100,000 female population in each group and are age-adjusted to the 2000 U.S. standard population.

Race categories are not mutually exclusive from the Hispanic/Latino origin category.

\* Rate based on small number (fewer than 20 cases) for the five-year period.

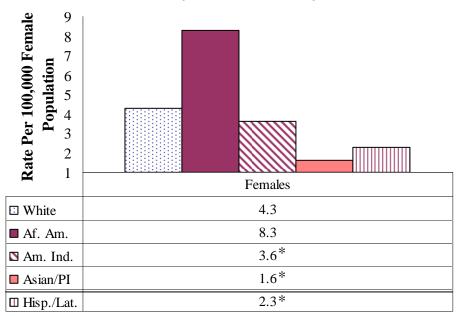


Figure 5.6. Uterine Cancer, Age-Adjusted Mortality Rates, by Race and Ethnicity, Wisconsin, 2000 - 2004

Source: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Notes: Rates are per 100,000 female population in each group and are age-adjusted to the 2000 U.S. standard population. Race categories are not mutually exclusive from the Hispanic /Latino origin category.

\* Rate based on small number (fewer than 20 deaths) for the five-year period.

Wisconsin Cancer Incidence and Mortality, 2000-2004

Table 5.3. Uterine Cancer Incidence and Mortality: Number of Cases and Deaths, Average								
Age-A	djusted Ra	tes and Co	nfidence Int	ervals, by	County, W	isconsin, 2	000-2004	
		Incid				Mor	tality	
	Total	Average	Confidence	e Interval	Total	Average	Confidence	Interval
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper
Adams County	13	17.8	9.3	32.4	4	5.0	1.4	15.4
Ashland County	17	33.8	19.3	55.2	1	1.0	0.0	9.9
Barron County	30	20.7	13.8	30.1	5	2.4	0.8	6.6
Bayfield County	16	31.1	17.7	52.0	4	7.8	2.1	22.2
Brown County	156	27.4	23.2	32.1	25	4.2	2.7	6.3
Buffalo County	12	25.9	13.2	47.0	4	6.1	1.6	19.0
Burnett County	9	15.0	6.7	30.6	5	7.3	2.4	19.8
Calumet County	27	26.4	17.4	38.5	4	4.0	1.1	10.3
Chippewa County	41	24.5	17.5	33.4	7	3.5	1.4	7.6
Clark County	21	20.9	12.8	32.4	4	3.5	0.9	9.7
Columbia County	51	33.8	25.1	44.6	12	7.4	3.8	13.2
Crawford County	12	21.8	11.3	39.1	2	3.3	0.4	14.0
Dane County	265	25.6	22.6	29.0	47	4.8	3.5	6.4
Dodge County	69	29.4	22.8	37.3	14	4.8	2.6	8.4
Door County	25	25.0	15.9	38.0	4	3.4	0.9	10.3
Douglas County	20	16.3	9.9	25.3	6	3.8	1.4	8.9
Dunn County	18	18.6	11.0	29.5	6	5.9	2.1	12.9
Eau Claire County	52	21.3	15.8	28.0	8	2.5	1.1	5.2
Florence County	8	47.5	20.3	99.4	0	0.0	0.0	33.1
Fond du Lac County	86	31.0	24.7	38.4	10	3.0	1.4	5.7
Forest County	8	26.6	11.2	54.3	0	0.0	0.0	15.1
Grant County	36	22.9	15.8	32.3	9	5.0	2.2	10.2
Green County	27	25.6	16.7	37.7	11	10.3	5.0	18.9
Green Lake County	15	24.3	13.5	41.0	1	1.7	0.0	10.6
Iowa County	17	26.2	15.2	42.3	8	10.9	4.7	22.2
Iron County	5	19.1	5.8	52.1	2	9.1	1.1	38.9
Jackson County	19	34.3	20.5	54.4	0	0.0	0.0	8.1
Jefferson County	51	24.3	18.1	32.0	10	4.7	2.3	8.8
Juneau County	21	25.5	15.6	39.9	4	5.1	1.3	14.1
Kenosha County	109	27.5	22.6	33.2	14	3.3	1.8	5.7
Kewaunee County	12	20.9	10.7	37.1	2	2.7	0.3	11.4
La Crosse County	82	29.3	23.2	36.4	13	4.3	2.3	7.5
Lafayette County	12	21.9	11.1	39.8	1	1.6	0.0	11.8
Langlade County	19	29.7	17.6	47.3	2	2.7	0.3	11.5
Lincoln County	29	30.8	20.3	45.1	8	6.3	2.6	13.7
Manitowoc County	76	30.1	23.6	37.9	12	4.2	2.1	7.6
Marathon County	93	26.2	21.1	32.2	11	2.8	1.4	5.1

		Incid	ence			Mor	tality	
	Total	Average	Confidence		Total	Average	Confidence	
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper
Marinette County	40	27.4	19.4	37.9	13	7.9	4.1	14.2
Marquette County	17	34.2	19.7	56.6	2	3.2	0.4	15.0
Menominee County	2	20.8	2.5	76.9	0	0.0	0.0	41.6
Milwaukee County	711	28.3	26.2	30.5	145	5.3	4.5	6.3
Monroe County	38	33.3	23.5	45.9	5	3.9	1.2	9.6
Oconto County	25	23.2	15.0	34.6	3	2.3	0.5	7.7
Oneida County	33	25.3	17.3	36.2	6	3.9	1.4	9.6
Outagamie County	122	29.7	24.6	35.5	21	4.9	3.0	7.5
Ozaukee County	55	22.2	16.7	29.0	10	4.1	2.0	7.7
Pepin County	2	7.5	0.8	32.2	1	2.2	0.1	23.3
Pierce County	13	15.3	8.1	26.3	1	1.1	0.0	6.5
Polk County	14	10.7	5.8	18.3	3	2.6	0.5	7.7
Portage County	48	29.2	21.5	38.8	9	5.4	2.4	10.3
Price County	11	19.8	9.7	37.6	0	0.0	0.0	10.6
Racine County	144	27.6	23.2	32.5	21	3.8	2.4	5.9
Richland County	18	31.4	18.5	50.5	2	3.6	0.4	14.1
Rock County	107	24.8	20.3	30.0	24	5.3	3.4	7.9
Rusk County	12	24.6	12.4	44.3	1	1.0	0.0	11.1
St Croix County	31	19.1	12.9	27.2	5	2.8	0.9	6.7
Sauk County	53	33.6	25.1	44.1	5	2.9	0.9	7.2
Sawyer County	11	18.1	9.0	34.0	2	3.3	0.4	14.4
Shawano County	33	26.5	18.1	37.7	7	4.4	1.7	9.8
Sheboygan County	102	31.7	25.8	38.6	16	4.6	2.6	7.6
Taylor County	16	27.8	15.5	46.1	7	10.6	4.1	23.2
Trempealeau County	22	27.9	17.4	42.8	5	5.9	1.9	14.5
Vernon County	28	31.4	20.7	46.0	4	4.8	1.3	12.7
Vilas County	24	26.8	16.9	41.7	4	4.1	1.1	13.1
Walworth County	68	26.2	20.3	33.3	11	3.9	1.9	7.2
Washburn County	11	24.2	11.9	44.4	2	3.6	0.4	15.4
Washington County	101	30.8	25.1	37.5	13	3.9	2.0	6.7
Waukesha County	307	28.6	25.5	32.0	41	3.7	2.6	5.0
Waupaca County	47	29.3	21.4	39.4	11	5.9	2.9	11.0
Waushara County	21	26.4	16.0	41.7	4	4.8	1.2	13.9
Winnebago County	130	30.7	25.6	36.5	22	4.7	2.9	7.2
Wood County	87	37.3	29.8	46.3	10	3.7	1.7	7.1

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Notes: Rates are per 100,000 female population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.)

County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

# **Chapter 6: Cancer of the Esophagus**

#### Incidence

The 2000-2004 average annual incidence rate for cancer of the esophagus among Wisconsin males (10.7 per 100,000) was over four times the rate among females (2.3 per 100,000) (Table 6.1). National rates show a similar male-female disparity ratio for this cancer, approximately 4 to 1 (Figure 6.1).

Twenty-five percent of all esophageal cancer cases were diagnosed at the early or local stage, 31 percent at the regional stage and 28 percent at the distant stage (Figure 6.4).

For males, Wisconsin incidence rates in 2000-2004 were higher than national incidence rates; among females, Wisconsin rates were similar to national rates (Figure 6.1).

# **Mortality**

For the five-year period, the male mortality rate for esophageal cancer (9.1 per 100,000) was five times the female rate (1.9 per 100,000) (Table 6.2). This is consistent with national rates (Figure 6.2).

Esophageal cancer mortality rates varied by race and ethnicity. African Americans had the highest mortality rate among both males and females (Figure 6.6).

Esophageal cancer mortality rates increased directly with age among both sexes, with the highest rate among those 80 years of age and older (Figure 6.3).

**Table 6.1.** Esophageal Cancer Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 2000 - 2004

		Male			Female			Total	-
Year of	Number	Age-Adj.		Number	Age-Adj.		Number	Age-Adj.	
Diagnosis	of Cases	Rate	APC	of Cases	Rate	APC	of Cases	Rate	APC
Annual Avg. 2000-2004	269	10.7	-3.1%	74	2.3	4.4%	343	6.1	-1.5%
2000	282	11.5	N/A	67	2.1	N/A	349	6.4	N/A
2001	277	11.2	N/A	65	2.1	N/A	342	6.2	N/A
2002	253	10.2	N/A	81	2.6	N/A	334	5.9	N/A
2003	267	10.4	N/A	78	2.5	N/A	345	6.1	N/A
2004	268	10.2	N/A	78	2.4	N/A	346	6.0	N/A

Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Source:

Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual

Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

**Table 6.2.** Esophageal Cancer Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 2000 - 2004

		Male	-		Female			Total	
Year of	Number	Age-Adj.		Number	Age-Adj.		Number	Age-Adj.	
Death	of Deaths	Rate	APC	of Deaths	Rate	APC	of Deaths	Rate	APC
Annual Avg. 2000-2004	226	9.1	2.4%	63	1.9	3.6%	289	5.1	2.9%
2000	182	7.7	N/A	55	1.6	N/A	237	4.3	N/A
2001	250	10.3	N/A	59	1.8	N/A	309	5.5	N/A
2002	230	9.3	N/A	66	2.0	N/A	296	5.2	N/A
2003	220	8.8	N/A	72	2.1	N/A	292	5.1	N/A
2004	248	9.6	N/A	61	1.8	N/A	309	5.3	N/A

National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual Note: Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

Rate per 100,000 12 Population 10 8 6 4 2 2000 2001 2002 2003 2004 - Wis. Males 11.5 11.2 10.2 10.4 10.2 Wis. Females 2.1 2.1 2.6 2.5 2.4 7.9 ··· U.S. Males 8.0 8.4 8.0 8.7 2.2 1.9 2.0 1.9 2.3 · · ▲ · · U.S. Females

Figure 6.1. Esophageal Cancer, Age-Adjusted Incidence Rates, by Sex, Wisconsin and United States, 2000 - 2004

# Year of Diagnosis

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

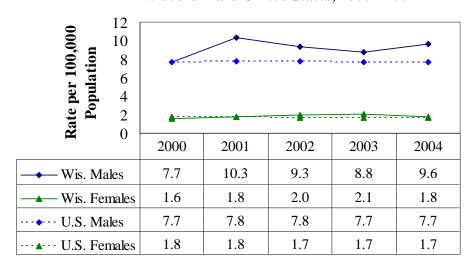


Figure 6.2. Esophageal Cancer, Age-Adjusted Mortality Rates, by Sex, Wisconsin and United States, 2000 - 2004

Sources: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

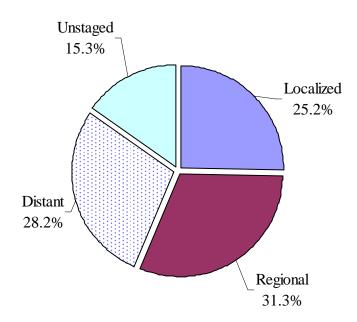
Wisconsin, 2000 - 2004 100 Rate per 100,000 Population 90 Male Incidence 80 - Female Incidence 70 Male Mortality 60 --- Female Mortality 50 40 30 20 10 0 00-04 05-09 10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75-79 80-84 85+ Age Groups

Figure 6.3. Esophageal Cancer, Age-Specific Incidence and Mortality Rates, By Sex,

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Note: Rates are per 100,000 population (2000-2004) for each age group and sex.

Figure 6.4. Esophageal Cancer, Stage of Disease at Diagnosis, 2000 - 2004



Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin

Department of Health and Family Services.

See Definitions, page 131, for definition of stage of disease at diagnosis. Note:

25 Rate Per 100,000 20 Population 15 10 5 0 Males Females Total 10.3 2.3 5.9 White 22.8 3.1 11.4 ■ Af. Am. 9.6 \* 2.1\* 5.2\* Am. Ind. 3.2\* 3.7\* ■ Asian/PI 4.6 \* ☐ Hisp./Lat. 9.1 \*2.2\* 5.6\*

Figure 6.5. Esophageal Cancer, Age-Adjusted Incidence Rates, by Race, Ethnicity and Sex, Wisconsin, 2000 - 2004

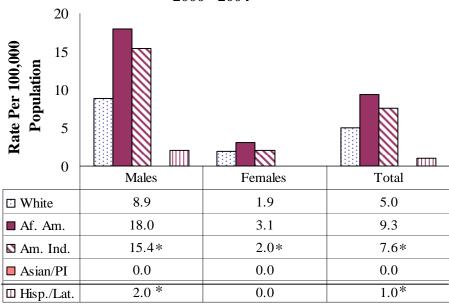
Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Notes: Rates are per 100,000 population in each group, and are age-adjusted to the 2000 U.S. standard population.

Race categories are not mutually exclusive from the Hispanic/Latino origin category.

\* Rate based on small number (fewer than 20 cases) for the five-year period.

Figure 6.6. Esophageal Cancer, Age-Adjusted Mortality Rates, by Race, Ethnicity and Sex, Wisconsin, 2000 - 2004



Source: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Notes: Rates are per 100,000 population in each group, and are age-adjusted to the 2000 U.S. standard population.

Race categories are not mutually excusive from Hispanic/Latino origin category.

\* Rate based on small number (fewer than 20 deaths) for the five-year period.

Age-A	Aajustea Ra	ates and C Incid	onfidence I	ntervais,	by County,	Wisconsii		4
	Total	Average	Confidence	e Interval	Total	Average	Confidence Interval	
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper
Adams County	9	6.8	3.0	13.6	7	5.1	2.0	11.3
Ashland County	7	6.4	2.5	13.8	6	5.9	2.1	13.3
Barron County	22	7.9	4.9	12.1	22	7.8	4.9	12.0
Bayfield County	8	8.1	3.5	16.7	8	7.9	3.4	16.4
Brown County	57	5.6	4.2	7.2	35	3.5	2.4	4.8
Buffalo County	1	1.1	0.0	7.3	0	0.0	0.0	5.4
Burnett County	2	1.8	0.2	7.6	7	5.6	2.2	12.6
Calumet County	11	5.8	2.9	10.3	13	7.1	3.8	12.1
Chippewa County	18	5.6	3.3	9.0	12	3.7	1.9	6.5
Clark County	9	5.0	2.3	9.5	6	3.2	1.2	7.2
Columbia County	11	3.7	1.9	6.7	14	4.6	2.5	7.8
Crawford County	8	7.4	3.2	15.0	3	2.7	0.6	8.6
Dane County	78	4.3	3.4	5.3	72	4.1	3.2	5.1
Dodge County	28	6.0	4.0	8.7	34	7.2	5.0	10.1
Door County	11	5.3	2.6	10.0	14	6.8	3.7	11.9
Douglas County	19	7.8	4.7	12.3	15	6.3	3.5	10.4
Dunn County	12	6.8	3.5	11.9	12	6.8	3.5	11.9
Eau Claire County	24	5.3	3.4	7.9	23	5.1	3.2	7.7
Florence County	2	5.4	0.6	24.0	2	5.3	0.6	23.8
Fond du Lac County	35	6.4	4.5	9.0	31	5.6	3.8	8.0
Forest County	8	11.5	4.9	24.0	6	8.8	3.2	20.5
Grant County	15	5.5	3.0	9.1	14	4.9	2.7	8.4
Green County	11	5.5	2.7	10.0	10	4.9	2.3	9.2
Green Lake County	9	7.1	3.2	14.1	7	5.4	2.2	11.7
Iowa County	6	4.9	1.8	10.9	6	5.1	1.9	11.1
Iron County	4	6.1	1.6	20.7	4	6.3	1.7	20.9
Jackson County	7	6.3	2.5	13.2	8	7.2	3.1	14.4
Jefferson County	20	5.1	3.1	7.9	18	4.6	2.7	7.3
Juneau County	12	8.0	4.1	14.1	8	5.4	2.3	10.9
Kenosha County	54	7.7	5.8	10.0	31	4.4	3.0	6.2
Kewaunee County	4	3.2	0.8	8.6	4	3.3	0.9	8.7
La Crosse County	34	6.5	4.5	9.1	25	4.8	3.1	7.1
Lafayette County	8	8.1	3.5	16.4	10	10.4	4.9	19.4
Langlade County	17	13.1	7.6	21.3	14	10.7	5.8	18.4
Lincoln County	16	8.8	5.0	14.5	7	3.8	1.5	8.2
Manitowoc County	34	7.1	4.9	9.9	26	5.2	3.4	7.7
Marathon County	35	5.3	3.7	7.4	32	4.8	3.3	6.9

		Incid	ence			Mort	ality	
	Total	Average	Confidence		Total	Average	Confidence	
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper
Marinette County	18	6.2	3.6	10.0	17	6.0	3.5	9.8
Marquette County	10	8.5	4.1	16.6	8	7.2	3.1	15.1
Menominee County	1	3.6	0.1	27.2	1	4.1	0.1	28.1
Milwaukee County	321	7.1	6.4	8.0	237	5.2	4.6	5.9
Monroe County	9	3.9	1.8	7.5	10	4.3	2.1	8.0
Oconto County	9	4.3	2.0	8.3	9	4.3	2.0	8.3
Oneida County	15	5.8	3.2	9.9	8	3.0	1.3	6.3
Outagamie County	46	6.1	4.5	8.2	46	6.0	4.4	8.1
Ozaukee County	28	6.2	4.1	8.9	24	5.3	3.4	7.9
Pepin County	3	6.5	1.3	20.3	2	4.2	0.5	16.9
Pierce County	6	4.1	1.5	8.8	7	4.8	1.9	9.7
Polk County	10	4.1	1.9	7.6	9	3.5	1.6	6.8
Portage County	16	5.3	3.0	8.7	16	5.3	3.0	8.6
Price County	8	7.0	3.0	14.7	9	8.0	3.7	16.2
Racine County	63	6.6	5.0	8.4	48	5.0	3.7	6.6
Richland County	9	7.5	3.4	14.8	11	9.6	4.8	17.6
Rock County	47	5.9	4.4	7.9	38	4.8	3.4	6.6
Rusk County	3	3.3	0.7	10.2	4	3.9	1.0	10.9
St Croix County	14	4.9	2.6	8.1	17	6.0	3.5	9.6
Sauk County	22	6.8	4.3	10.4	18	5.7	3.4	9.1
Sawyer County	8	7.5	3.2	15.3	9	8.3	3.8	16.3
Shawano County	11	4.4	2.2	8.1	11	4.2	2.1	7.8
Sheboygan County	35	5.8	4.0	8.0	28	4.5	3.0	6.6
Taylor County	9	7.7	3.5	14.9	8	6.7	2.8	13.5
Trempealeau County	9	5.7	2.6	11.0	4	2.5	0.7	6.7
Vernon County	13	7.0	3.7	12.3	9	4.9	2.2	9.5
Vilas County	16	8.3	4.7	14.4	18	9.9	5.8	16.5
Walworth County	27	5.5	3.6	8.0	17	3.5	2.0	5.6
Washburn County	9	7.9	3.6	15.7	8	6.9	3.0	14.5
Washington County	30	5.1	3.4	7.2	27	4.6	3.0	6.8
Waukesha County	107	5.7	4.6	6.9	92	4.9	3.9	6.0
Waupaca County	19	5.8	3.5	9.2	18	5.2	3.1	8.4
Waushara County	14	8.7	4.7	15.2	14	8.9	4.8	15.5
Winnebago County	59	7.4	5.7	9.6	50	6.3	4.7	8.3
Wood County	26	5.9	3.9	8.8	25	5.5	3.5	8.2

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Notes: Rates are per 100,000 population, and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.)

County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

# **Chapter 7: Cancers of the Kidney and Renal Pelvis**

## **Incidence**

Each year during 2000-2004, approximately 770 Wisconsin residents were diagnosed with cancer of the kidney and renal pelvis. The age-adjusted incidence rate increased during that five-year period from 12.7 to 14.0 per 100,000 population (Table 7.1).

The average annual age-adjusted incidence rate of kidney and renal cancer for Wisconsin males (18.2 per 100,000) was almost twice the rate for Wisconsin females (9.9 per 100,000) (Figure 7.1).

Fifty-eight percent of all kidney and renal cancer cases were diagnosed at the early (localized) stage, and 34 percent at the regional or distant stage (Figure 7.4).

Among the four major racial groups in Wisconsin, American Indians had the highest age-adjusted incidence rate of kidney and renal cancer (25.1 per 100,000) and Asians/Pacific Islanders had the lowest (4.4 per 100,000). The incidence rate for Hispanics/Latinos (of any race) was 12.3 per 100,000 (Figure 7.5).

## **Mortality**

Each year during the 2000-2004 period, approximately 260 Wisconsin residents died of cancer of the kidney and renal pelvis (Table 7.2).

For this five-year period, the male mortality rate (6.5 per 100,000) was over twice the female rate (3.1 per 100,000). This is consistent with national trends (Figure 7.2).

Mortality rates for this cancer varied by race. American Indians had the highest mortality rate (5.7 per 100,000) and Asians/Pacific Islanders had the lowest (1.5 per 100,000) (Figure 7.6). Hispanics/Latinos (of any race) also experienced a relatively low mortality rate, 1.7 per 100,000.

Table 7.1. Kidney and Renal Pelvis Cancer Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 2000 - 2004

		Male			Female			Total	
Year of	Number	Age-Adj.		Number	Age-Adj.		Number	Age-Adj.	
Diagnosis	of Cases	Rate	APC	of Cases	Rate	APC	of Cases	Rate	APC
Annual Avg.									
2000-2004	466	18.2	1.8%	305	9.9	3.0%	772	13.7	2.3%
2000	416	16.7	N/A	278	9.2	N/A	694	12.7	N/A
2001	472	18.9	N/A	293	9.7	N/A	765	13.8	N/A
2002	459	18.0	N/A	302	9.8	N/A	761	13.5	N/A
2003	493	19.1	N/A	332	10.7	N/A	825	14.5	N/A
2004	492	18.3	N/A	321	10.1	N/A	813	14.0	N/A

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin

Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual

Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

Table 7.2. Kidney and Renal Pelvis Cancer Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 2000 - 2004

		Male			Female			Total	
Year of	Number	Age-Adj.		Number	Age-Adj.		Number	Age-Adj.	
Death	of Deaths	Rate	APC	of Deaths	Rate	APC	of Deaths	Rate	APC
Annual Avg.									
2000-2004	160	6.5	0.7%	101	3.1	2.6%	261	4.6	1.4%
2000	150	6.4	N/A	102	3.1	N/A	252	4.5	N/A
2001	157	6.5	N/A	83	2.5	N/A	240	4.3	N/A
2002	171	6.9	N/A	104	3.2	N/A	275	4.9	N/A
2003	151	6.1	N/A	108	3.2	N/A	259	4.5	N/A
2004	171	6.8	N/A	107	3.2	N/A	278	4.7	N/A

Source: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual

Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

25 Rate per 100,000 20 15 10 5 0 2000 2001 2002 2003 2004 18.9 19.1 – Wis. Males 16.7 18.0 18.3 Wis. Females 9.2 9.7 9.8 10.7 10.1 17.4 ··· U.S. Males 17.3 17.6 17.8 17.8 9.5 8.5 8.5 8.7 9.2 · ▲ · · U.S. Females

Figure 7.1. Kidney and Renal Pelvis Cancer, Age-Adjusted Incidence Rates, by Sex, Wisconsin and United States, 2000 - 2004

# Year of Diagnosis

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

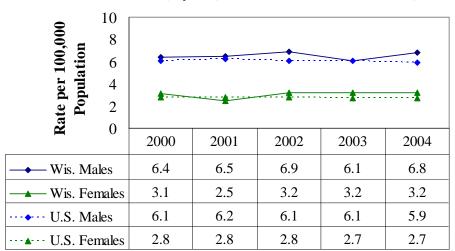
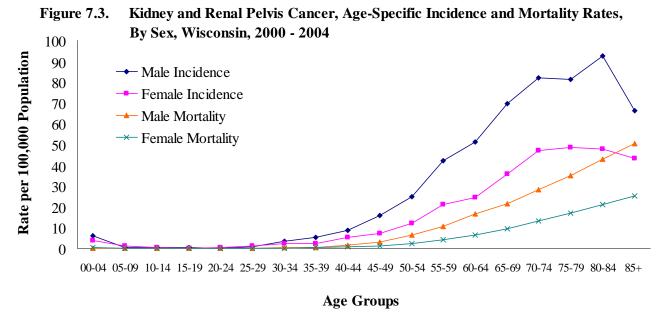


Figure 7.2. Kidney and Renal Pelvis Cancer, Age-Adjusted Mortality Rates, by Sex, Wisconsin and United States, 2000 - 2004

Sources: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

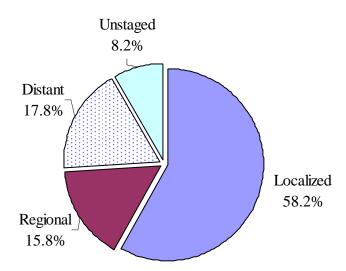
Note: Rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.



Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Note: Rates are per 100,000 population (2000-2004) for each age group and sex.

Figure 7.4. Kidney and Renal Pelvis Cancer, Stage of Disease at Diagnosis, Wisconsin, 2000 - 2004



Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin

Department of Health and Family Services.

Note: See Definitions, page 131, for definition of stage of disease at diagnosis.

30 Rate Per 100,000 25 Population 20 15 10 5 0 Males Females Total 18.0 9.7 13.5 White 22.9 11.9 16.7 ■ Af. Am. 28.4\* Nam. Ind. ■ 22.8 25.1 3.9\* 5.3 \* 4.4\* ■ Asian/PI 12.1 12.2 12.3 ☐ Hisp./Lat.

Figure 7.5. Kidney and Renal Pelvis Cancer, Age-Adjusted Incidence Rates, by Race, Ethnicity and Sex, Wisconsin, 2000 - 2004

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin

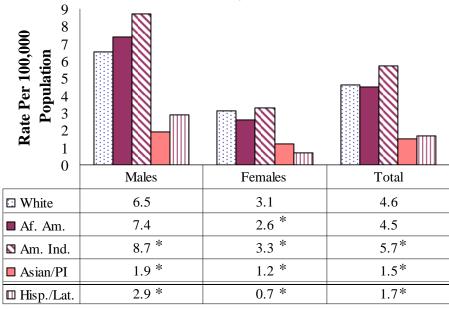
Department of Health and Family Services.

Notes: Rates are per 100,000 population in each group and are age-adjusted to the 2000 U.S. standard population.

Race categories are not mutually exclusive from the Hispanic/Latino origin category.

\* Rate based on small number (fewer than 20 cases) for the five-year period.

Figure 7.6. Kidney and Renal Pelvis Cancer, Age-Adjusted Mortality Rates, by Race, Ethnicity and Sex, Wisconsin, 2000 - 2004



Source: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Notes: Rates are per 100,000 population in each group and are age-adjusted to the 2000 U.S. standard population. Race categories are not mutually exclusive from the Hispanic/Latino origin category.

\* Rate based on small number (fewer than 20 deaths) for the five-year period.

Table 7.3. Kidney and Renal Pelvis Cancer Incidence and	d Mortality: Number of Cases and Deaths,
Average Age-Adjusted Rates and Confidence In	ntervals, by County, Wisconsin, 2000-2004

Average A	Average Age-Adjusted Rates and Confidence  Incidence					Mort		-2004
	Total	Average	Confidence	- Interval	Total	Average	Confidenc	e Interval
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper
Adams County	20	15.4	9.2	24.4	13	8.2	4.3	14.9
Ashland County	9	9.7	4.4	18.8	2	1.8	0.2	7.3
Barron County	29	10.4	6.9	15.1	11	3.9	1.9	7.1
Bayfield County	11	11.0	5.4	20.5	5	5.1	1.6	12.7
Brown County	180	17.1	14.7	19.8	48	4.7	3.4	6.2
Buffalo County	6	7.3	2.7	16.3	3	3.2	0.7	10.3
Burnett County	10	8.3	3.9	16.2	5	4.2	1.3	10.8
Calumet County	25	12.2	7.9	18.1	6	3.0	1.1	6.6
Chippewa County	38	11.8	8.3	16.3	23	7.1	4.5	10.7
Clark County	27	13.5	8.8	19.8	11	5.3	2.6	9.7
Columbia County	43	14.3	10.4	19.4	24	7.5	4.8	11.3
Crawford County	13	12.7	6.7	22.2	4	3.8	1.0	10.2
Dane County	219	11.8	10.2	13.5	68	3.8	2.9	4.8
Dodge County	48	10.4	7.7	13.9	25	5.2	3.4	7.8
Door County	31	15.0	10.2	21.7	6	2.8	1.0	6.7
Douglas County	27	11.1	7.3	16.3	15	6.2	3.5	10.4
Dunn County	19	10.3	6.2	16.1	9	5.2	2.4	9.8
Eau Claire County	54	11.7	8.8	15.4	29	6.2	4.1	8.9
Florence County	4	11.0	3.0	31.8	2	5.9	0.7	25.1
Fond du Lac County	79	14.7	11.6	18.4	20	3.6	2.2	5.6
Forest County	10	16.6	7.7	31.5	4	5.7	1.6	16.0
Grant County	34	12.4	8.5	17.5	14	4.6	2.5	7.8
Green County	24	12.8	8.2	19.2	10	5.1	2.4	9.6
Green Lake County	18	13.8	8.1	22.3	6	4.6	1.7	10.7
Iowa County	16	12.9	7.4	21.1	2	1.6	0.2	6.1
Iron County	10	17.6	8.3	36.0	6	9.0	3.3	24.2
Jackson County	26	23.6	15.4	34.8	11	9.8	4.9	17.8
Jefferson County	46	12.0	8.8	16.0	22	5.8	3.6	8.8
Juneau County	19	12.0	7.2	19.0	9	5.5	2.5	10.8
Kenosha County	107	14.8	12.1	17.9	30	4.2	2.8	5.9
Kewaunee County	22	19.2	12.0	29.3	9	7.7	3.5	14.8
La Crosse County	79	15.1	11.9	18.8	18	3.5	2.1	5.5
Lafayette County	6	6.3	2.3	14.0	3	3.3	0.7	9.9
Langlade County	20	15.1	9.2	23.8	9	6.5	2.9	12.8
Lincoln County	30	16.1	10.9	23.3	14	7.0	3.8	12.0
Manitowoc County	63	13.5	10.3	17.3	19	3.8	2.3	6.1
Marathon County	108	16.3	13.3	19.7	42	6.3	4.5	8.5

		Incid	ence			Mort	ality	
	Total	Average	Confidence	e Interval	Total	Average	Confidenc	e Interval
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper
Marinette County	32	11.5	7.8	16.5	5	1.7	0.5	4.2
Marquette County	19	19.6	11.5	31.5	4	4.5	1.2	12.1
Menominee County	7	43.7	15.8	92.8	2	9.0	1.0	36.3
Milwaukee County	660	14.5	13.4	15.7	208	4.5	3.9	5.1
Monroe County	33	14.7	10.1	20.7	8	3.3	1.4	6.7
Oconto County	34	16.4	11.4	23.1	9	4.4	2.0	8.5
Oneida County	47	19.4	14.2	26.1	13	5.0	2.7	9.0
Outagamie County	114	14.7	12.1	17.7	46	6.1	4.5	8.1
Ozaukee County	51	10.9	8.1	14.4	23	5.0	3.1	7.5
Pepin County	6	13.3	4.9	30.1	1	1.8	0.0	12.9
Pierce County	14	8.5	4.6	14.3	3	2.1	0.4	5.9
Polk County	21	8.3	5.2	12.9	12	4.7	2.4	8.4
Portage County	41	13.4	9.6	18.2	12	3.9	2.0	6.9
Price County	15	13.4	7.4	23.0	7	5.6	2.2	12.8
Racine County	147	15.3	12.9	18.0	36	3.7	2.6	5.2
Richland County	12	10.6	5.4	19.0	5	4.3	1.4	10.6
Rock County	88	11.1	8.9	13.7	46	5.8	4.3	7.8
Rusk County	8	8.7	3.7	17.7	1	1.0	0.0	6.5
St Croix County	19	6.4	3.8	10.0	16	5.5	3.1	9.0
Sauk County	30	9.6	6.5	13.8	10	3.1	1.5	5.8
Sawyer County	9	7.8	3.6	15.6	6	5.3	1.9	12.3
Shawano County	40	15.9	11.3	21.8	14	5.1	2.8	8.8
Sheboygan County	74	12.2	9.6	15.4	24	3.8	2.4	5.7
Taylor County	20	17.5	10.7	27.3	10	8.0	3.8	15.2
Trempealeau County	20	12.6	7.7	19.7	5	2.8	0.9	6.9
Vernon County	24	13.6	8.6	20.6	9	4.6	2.1	9.1
Vilas County	20	12.1	7.2	19.6	7	3.9	1.5	9.0
Walworth County	56	11.6	8.8	15.1	19	3.8	2.3	5.9
Washburn County	17	14.6	8.5	24.1	2	2.0	0.2	8.0
Washington County	97	16.2	13.1	19.8	18	3.1	1.8	4.8
Waukesha County	294	15.2	13.5	17.1	87	4.6	3.7	5.7
Waupaca County	36	11.9	8.3	16.6	14	4.5	2.4	7.7
Waushara County	21	13.0	7.9	20.5	7	4.4	1.7	9.5
Winnebago County	138	17.3	14.5	20.5	46	5.7	4.2	7.7
Wood County	64	14.5	11.1	18.6	12	2.8	1.4	4.9

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Notes: Rates are per 100,000 population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.)

County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

## **Chapter 8: Leukemia**

### **Incidence**

Approximately 783 Wisconsin residents were diagnosed with leukemia each year during 2000-2004 (Table 8.1). Certain types of leukemia occur more frequently in children; it was the most commonly diagnosed cancer among both males and females under age 15 (Table 1.4).

The average annual age-adjusted incidence rate for 2000-2004 for leukemia was higher for males than females (18.0 per 100,000 compared to 10.8 per 100,000) (Table 8.1).

Among the four racial groups, the age-adjusted incidence rate for leukemia was higher for American Indians (14.1 per 100,000) and whites (13.9 per 100,000) and lowest for Asians/Pacific Islanders (6.7 per 100,000) (Figure 8.4).

## **Mortality**

During 2000-2004 an average of 473 deaths from leukemia were reported each year among Wisconsin residents (Table 8.2). Among both males and females under age 25, leukemia was the leading cause of cancer deaths (Table 1.5).

As observed for leukemia incidence rates, leukemia mortality rates were higher among males (10.5 per 100,000) than females (6.6 per 100,000) (Table 8.2). National rates show a similar pattern (Figure 8.2).

Whites had the highest mortality rate (8.3 per 100,000), followed by American Indians (7.7 per 100,000) and African-Americans (7.3 per 100,000). The mortality rate for Hispanics/Latinos (of any race) was lower than for any of the racial groups (2.5 per 100,000) (Figure 8.5).

**Table 8.1.** Leukemia Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 2000 - 2004

		Male	•		Female	•		Total	
Year of	Number	Age-Adj.		Number	Age-Adj.		Number	Age-Adj.	
Diagnosis	of Cases	Rate	APC	of Cases	Rate	APC	of Cases	Rate	APC
Annual Avg.									
2000-2004	444	18.0	-2.1%	339	10.8	-2.0%	783	13.9	-2.0%
2000	409	17.0	N/A	335	10.8	N/A	744	13.5	N/A
2001	482	19.7	N/A	350	11.4	N/A	832	14.9	N/A
2002	465	18.9	N/A	348	11.2	N/A	813	14.5	N/A
2003	458	18.3	N/A	351	11.2	N/A	809	14.3	N/A
2004	405	15.9	N/A	312	9.8	N/A	717	12.5	N/A

Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Source:

Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual

Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

**Table 8.2.** Leukemia Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 2000 - 2004

		Male			Female			Total	
Year of	Number	Age-Adj.		Number	Age-Adj.		Number	Age-Adj.	
Death	of Deaths	Rate	APC	of Deaths	Rate	APC	of Deaths	Rate	APC
Annual Avg.									
2000-2004	251	10.5	1.6%	222	6.6	-1.2%	473	8.2	0.1%
2000	232	10.0	N/A	227	6.8	N/A	459	8.2	N/A
2001	273	11.6	N/A	214	6.4	N/A	487	8.6	N/A
2002	225	9.4	N/A	223	6.6	N/A	448	7.8	N/A
2003	248	10.2	N/A	229	6.8	N/A	477	8.2	N/A
2004	279	11.5	N/A	217	6.3	N/A	496	8.4	N/A

National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual

Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

25 Rate per 100,000 20 Population 15 10 5 0 2000 2001 2002 2003 2004 19.7 15.9 – Wis. Males 17.0 18.9 18.3 Wis. Females 10.8 11.4 11.2 11.2 9.8 17.5 ··· U.S. Males 16.9 16.5 16.2 15.4 10.4 9.5 9.4 9.5 ▲ U.S. Females 10.2

Figure 8.1. Leukemia, Age-Adjusted Incidence Rates, by Sex, Wisconsin and United States, 2000 - 2004

## Year of Diagnosis

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

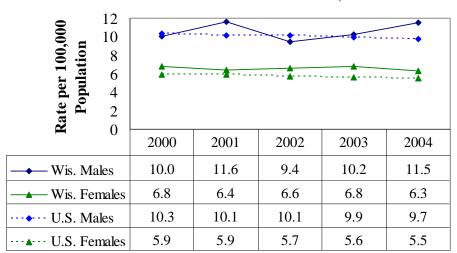


Figure 8.2. Leukemia, Age-Adjusted Mortality Rates, by Sex, Wisconsin and United States, 2000 - 2004

#### Year of Death

Sources: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

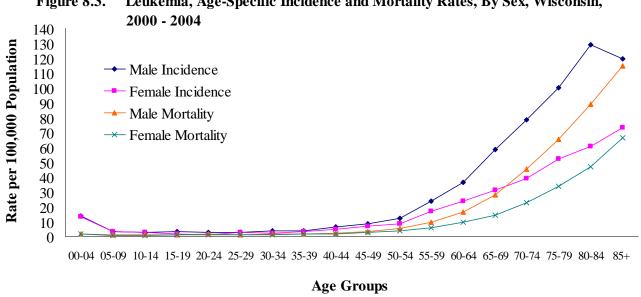


Figure 8.3. Leukemia, Age-Specific Incidence and Mortality Rates, By Sex, Wisconsin,

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Rates are per 100,000 population (2000-2004) for each age group and sex. Note:

> Information on stage of disease at diagnosis is not presented for leukemia because it is systemic and all leukemia cases are therefore classified as distant stage.

18 16 Rate Per 100,000 14 Population 12 10 8 6 4 2 Males Females Total White 17.9 10.9 13.9 8.8 11.3 ■ Af. Am. 14.6 14.4 14.1 Am. Ind. 13.3 9.5 \* 4.4\* 6.7 ■ Asian/PI 12.8 6.6 9.5 ☐ Hisp./Lat.

Figure 8.5. Leukemia, Age-Adjusted Incidence Rates, by Race, Ethnicity and Sex, Wisconsin, 2000 - 2004

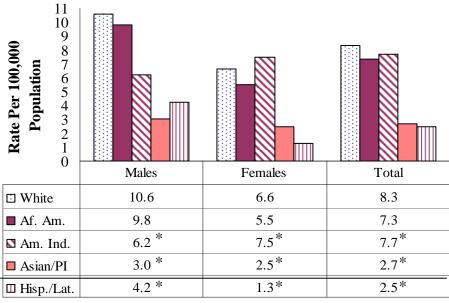
Department of Health and Family Services.

Notes: Rates are per 100,000 population in each group and are age-adjusted to the 2000 U.S. standard population.

Race categories are not mutually exclusive from the Hispanic/Latino origin category.

\* Rate based on small number (fewer than 20 cases) for the five-year period.

Figure 8.6. Leukemia, Age-Adjusted Mortality Rates, by Race, Ethnicity and Sex, Wisconsin, 2000 - 2004



Source: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Notes: Rates are per 100,000 population in each group and are age-adjusted to the 2000 U.S. standard population. Race categories are not mutually exclusive from the Hispanic/Latino origin category.

\* Rate based on small number (fewer than 20 deaths) for the five-year period.

Table 8.3. Leukemia Incidence and Mortality: Number of Cases and Deaths, Average								
Age-A	Adjusted Ra	ates and C	onfidence I	ntervals,	by County,	Wisconsii	n, 2000-200	4
		Incid	ence			Mort	ality	
	Total	Average	Confidence	e Interval	Total	Average	Confidence	
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper
Adams County	16	12.6	6.9	21.2	13	8.4	4.4	15.1
Ashland County	13	13.1	6.8	23.0	9	7.8	3.5	15.6
Barron County	30	10.4	7.0	15.1	20	6.8	4.1	10.7
Bayfield County	8	8.8	3.7	18.1	7	7.1	2.9	15.4
Brown County	130	12.2	10.2	14.5	72	6.7	5.2	8.4
Buffalo County	11	12.3	6.1	22.5	10	12.5	5.9	23.6
Burnett County	7	5.6	2.2	12.5	13	10.4	5.5	18.8
Calumet County	21	11.0	6.8	16.8	14	7.7	4.2	12.9
Chippewa County	50	15.9	11.8	21.1	24	7.6	4.9	11.4
Clark County	26	12.4	8.0	18.4	17	7.4	4.3	12.2
Columbia County	44	15.0	10.9	20.2	26	8.7	5.7	12.9
Crawford County	10	9.4	4.5	17.7	11	9.9	4.9	18.2
Dane County	286	15.6	13.8	17.5	142	8.0	6.8	9.5
Dodge County	68	14.5	11.2	18.4	51	10.5	7.8	13.9
Door County	22	11.5	7.0	18.1	14	6.4	3.5	11.3
Douglas County	38	15.0	10.6	20.8	24	9.0	5.8	13.6
Dunn County	17	9.3	5.4	15.0	14	7.1	3.8	12.1
Eau Claire County	50	11.4	8.4	15.0	35	7.6	5.3	10.6
Florence County	3	8.3	1.7	28.2	4	11.2	3.0	32.2
Fond du Lac County	64	11.8	9.0	15.1	46	8.1	5.9	10.9
Forest County	7	9.7	3.8	21.3	2	2.5	0.3	11.1
Grant County	38	13.2	9.3	18.2	23	7.7	4.9	11.8
Green County	31	16.0	10.8	22.9	15	7.2	4.0	12.1
Green Lake County	22	17.8	11.0	27.6	10	7.5	3.5	14.3
Iowa County	13	10.8	5.7	18.6	13	10.9	5.8	18.7
Iron County	3	5.4	1.1	20.0	4	6.9	1.9	22.0
Jackson County	16	14.5	8.3	23.9	16	13.6	7.7	22.4
Jefferson County	50	12.8	9.5	16.9	28	7.1	4.7	10.3
Juneau County	23	14.7	9.3	22.4	10	6.2	3.0	11.7
Kenosha County	66	9.0	7.0	11.5	44	6.1	4.4	8.2
Kewaunee County	18	14.6	8.6	23.5	10	8.0	3.8	15.1
La Crosse County	70	13.1	10.2	16.6	39	7.0	5.0	9.7
Lafayette County	13	14.4	7.5	24.9	10	10.6	5.0	20.0
Langlade County	18	12.9	7.5	20.9	10	6.8	3.1	13.2
Lincoln County	29	17.5	11.6	25.4	21	11.7	7.1	18.2
Manitowoc County	49	10.2	7.5	13.5	30	5.9	4.0	8.5
Marathon County	115	17.3	14.2	20.7	64	9.4	7.2	12.0

		Incid	ence			Mort	ality	
	Total	Average	Confidence	e Interval	Total	Average	Confidenc	e Interval
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper
Marinette County	36	13.9	9.6	19.6	27	9.3	6.0	13.8
Marquette County	16	16.2	9.0	27.2	10	9.2	4.4	17.8
Menominee County	2	20.1	1.7	67.4	3	20.1	3.5	59.2
Milwaukee County	637	13.7	12.7	14.8	391	8.3	7.5	9.2
Monroe County	32	14.4	9.9	20.4	19	8.4	5.0	13.2
Oconto County	23	11.1	7.0	16.7	16	7.6	4.3	12.5
Oneida County	42	17.6	12.5	24.3	23	8.7	5.5	13.4
Outagamie County	116	15.0	12.4	18.0	73	9.5	7.4	12.0
Ozaukee County	72	16.7	13.0	21.0	32	7.3	5.0	10.3
Pepin County	4	7.9	2.1	22.0	6	10.9	3.9	25.8
Pierce County	15	9.5	5.3	15.7	10	6.8	3.2	12.4
Polk County	32	13.0	8.9	18.4	27	10.5	6.9	15.5
Portage County	46	14.7	10.8	19.7	29	9.3	6.2	13.4
Price County	14	14.6	7.6	25.6	9	6.6	3.0	13.9
Racine County	127	13.3	11.1	15.8	81	8.6	6.8	10.7
Richland County	18	15.8	9.3	25.4	7	6.0	2.4	12.8
Rock County	135	17.2	14.4	20.3	58	7.3	5.6	9.5
Rusk County	11	11.6	5.6	21.4	7	6.3	2.5	14.0
St Croix County	28	9.9	6.6	14.3	25	8.6	5.5	12.7
Sauk County	38	12.2	8.6	16.8	22	6.8	4.2	10.4
Sawyer County	8	6.9	3.0	14.4	8	6.8	2.9	14.2
Shawano County	49	19.8	14.6	26.4	19	7.0	4.2	11.1
Sheboygan County	92	15.2	12.2	18.7	53	8.5	6.4	11.2
Taylor County	17	15.4	8.9	24.9	7	5.9	2.3	12.5
Trempealeau County	30	19.5	13.0	28.1	17	10.2	5.8	16.6
Vernon County	14	7.9	4.3	13.5	7	3.5	1.4	7.6
Vilas County	18	11.8	6.7	19.5	15	7.9	4.4	13.9
Walworth County	64	13.1	10.1	16.7	39	7.6	5.4	10.5
Washburn County	5	7.0	2.1	16.5	4	3.5	0.9	9.8
Washington County	103	17.4	14.2	21.1	66	11.5	8.9	14.7
Waukesha County	319	17.0	15.2	19.0	180	9.7	8.3	11.2
Waupaca County	56	17.8	13.4	23.3	36	10.5	7.3	14.7
Waushara County	25	15.3	9.9	23.0	12	7.1	3.7	12.8
Winnebago County	97	12.2	9.9	15.0	66	8.1	6.2	10.3
Wood County	80	17.9	14.2	22.4	48	10.2	7.5	13.7

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Notes: Rates are per 100,000 population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.)

County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

# **Chapter 9: Cancer of the Lung and Bronchus**

#### Incidence

From 2000 to 2004, each year an average of 3,663 Wisconsin residents were diagnosed with cancer of the lung and bronchus (Table 9.1). Cancer of the lung and bronchus is the third most commonly diagnosed cancer in Wisconsin, following prostate and breast cancers (Figures 1.7 and 1.8).

Cancer of the lung and bronchus occurred more often among men (83.0 per 100,000 population) than among women (52.4 per 100,000 population). Over the 2000-2004 period, males in Wisconsin had higher lung cancer incidence rates than their national counterparts (Figure 9.1).

Among the racial groups, African Americans and American Indians had the highest rates of lung and bronchus cancers (103.7 per 100,000 and 89.6 per 100,000, respectively) (Figure 9.5). Asians/Pacific Islanders had the lowest incidence rate for this cancer (29.9 per 100,000). Hispanics/Latinos (of any race) had an incidence rate of 40.9 per 100,000.

Twenty percent of lung and bronchus cancer cases were diagnosed at the localized stage of disease during 2000-2004, 26 percent were diagnosed at the regional stage, and 40 percent at the distant stage (Figure 9.4).

Lung and bronchus cancer incidence rates for the combined years 2000-2004 varied dramatically by county, ranging from 42.0 per 100,000 in Calumet County to 136.3 per 100,000 in Menominee County (Table 9.5).

### **Mortality**

During 2000- 2004, cancer of the lung and bronchus was the leading cause of cancer-related death for both men and women (Figures 1.7 and 1.8).

Lung and bronchial cancer mortality varied greatly by race and ethnicity, closely following incidence patterns. African Americans had the highest death rate (80.1 per 100,000). The lowest cancer mortality rates were found among Asians/Pacific Islanders (20.1 per 100,000) and Hispanics/Latinos (15.2 per 100,000) (Figure 9.6).

Wisconsin lung and bronchus cancer mortality rates during 2000-2004 for both men and women were lower than national rates (Figure 9.2).

By county, lung and bronchus cancer mortality rates for the combined years 2000-2004 ranged from a low of 33.0 per 100,000 in Kewaunee County to a high of 89.7 per 100,000 in Menominee County (Table 9.3).

Table 9.1. Lung Cancer Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 2000 - 2004

		Male	•		Female	•		Total	
Year of	Number	Age-Adj.		Number	Age-Adj.		Number	Age-Adj.	
Diagnosis	of Cases	Rate	APC	of Cases	Rate	APC	of Cases	Rate	APC
Annual Avg.									
2000-2004	2,048	83.0	-1.2%	1,615	52.4	0.3%	3,663	65.2	-0.5%
2000	2,047	85.5	N/A	1,480	49.1	N/A	3,527	64.4	N/A
2001	2,004	82.6	N/A	1,664	54.7	N/A	3,668	66.3	N/A
2002	2,054	83.5	N/A	1,663	53.9	N/A	3,717	66.2	N/A
2003	2,108	83.9	N/A	1,677	54.0	N/A	3,785	66.6	N/A
2004	2,028	79.7	N/A	1,590	50.3	N/A	3,618	62.7	N/A

Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual

Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

Table 9.2. Lung Cancer Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 2000 - 2004

		Male			Female			Total	
Year of	Number	Age-Adj.		Number	Age-Adj.		Number	Age-Adj.	
Death	of Deaths	Rate	APC	of Deaths	Rate	APC	of Deaths	Rate	APC
Annual Avg.									
2000-2004	1,586	65.4	-0.2%	1,181	37.4	1.2%	2,767	49.0	0.4%
2000	1,575	66.8	N/A	1,085	35.2	N/A	2,660	48.2	N/A
2001	1,554	65.1	N/A	1,189	37.8	N/A	2,743	49.2	N/A
2002	1,559	64.3	N/A	1,244	39.8	N/A	2,803	49.7	N/A
2003	1,572	63.9	N/A	1,153	36.2	N/A	2,725	47.5	N/A
2004	1,671	66.5	N/A	1,234	38.3	N/A	2,905	50.2	N/A

Source: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual

Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

100 Rate per 100,000 Population 80 60 40 20 2000 2001 2002 2003 2004 85.5 83.9 79.7 – Wis. Males 82.6 83.5 Wis. Females 49.1 54.7 53.9 54.0 50.3 79.9 ··· U.S. Males 81.8 80.8 79.8 73.6 51.1 51.4 51.9 52.2 50.2 ▲ U.S. Females

Figure 9.1. Lung Cancer, Age-Adjusted Incidence Rates, by Sex, Wisconsin and United States, 2000 - 2004

## Year of Diagnosis

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

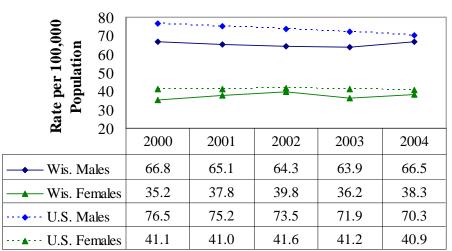


Figure 9.2. Lung Cancer, Age-Adjusted Mortality Rates, by Sex, Wisconsin and United States, 2000 - 2004

### Year of Death

Sources: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

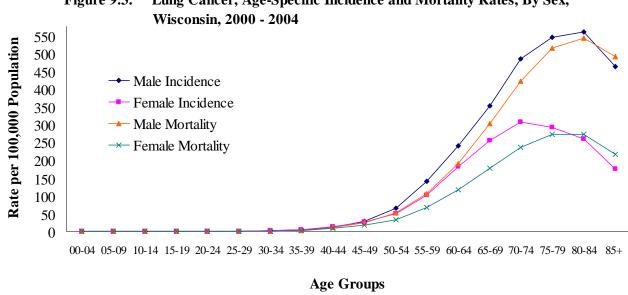


Figure 9.3. Lung Cancer, Age-Specific Incidence and Mortality Rates, By Sex,

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Rates are per 100,000 population (2000-2004) for each age group and sex. Note:

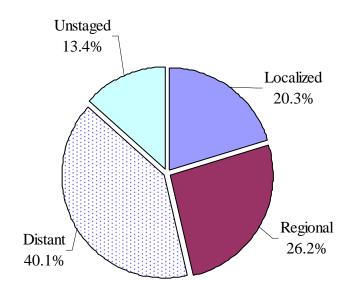


Figure 9.4. Lung Cancer, Stage of Disease at Diagnosis, Wisconsin, 2000 - 2004

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin

Department of Health and Family Services.

See Definitions, page 131, for definition of stage of disease at diagnosis. Note:

160 140 Rate Per 100,000 120 Population 100 80 60 40 20 Males Females Total White
 ■ 80.9 51.4 63.8 ■ Af. Am. 153.5 71.6 103.7 N Am. Ind. 107.7 78.0 89.6 24.9 29.9 ■ Asian/PI 38.7 50.3 32.9 40.9 ■ Hisp./Lat.

Figure 9.5. Lung Cancer, Age-Adjusted Incidence Rates, by Race, Ethnicity and Sex, Wisconsin, 2000 - 2004

Department of Health and Family Services.

Notes: Rates are per 100,000 population in each group and are age-adjusted to the 2000 U.S. standard population.

Race categories are not mutually exclusive from the Hispanic/Latino origin category.

125 105 85 Rate Per 100,000 Population 65 45 25 5 Males Females Total White
 64.1 36.8 48.1 119.9 55.1 80.1 ■ Af. Am. 61.3 57.6 59.1 Am. Ind. 24.3\* 17.7\* 20.1 ■ Asian/PI 20.6 10.1\* 15.2

Figure 9.6. Lung Cancer, Age-Adjusted Mortality Rates, by Race, Ethnicity and Sex, Wisconsin, 2000 - 2004

National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat. Rates are per 100,000 population in each group and are age-adjusted to the 2000 U.S. standard population. Notes: Race categories are not mutually exclusive from the Hispanic/Hispanic origin category.

Rate based on small number (fewer than 20 deaths) for the five-year period.

☐ Hisp./Lat.

Table 9.3. Lung	Table 9.3. Lung Cancer Incidence and Mortality: Number of Cases and Deaths, Average								
Age-A	djusted Ra	tes and Co	nfidence Int	ervals, by	County, W	isconsin, 2	000-2004		
		Incid	ence			Mort	ality		
	Total	Average	Confidence	e Interval	Total	Average	Confidence	e Interval	
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper	
Adams County	99	64.6	52.2	79.4	101	65.3	53.0	80.0	
Ashland County	83	86.3	68.6	107.4	58	58.1	44.0	75.6	
Barron County	149	52.3	44.2	61.6	130	45.2	37.7	53.8	
Bayfield County	48	48.7	35.9	65.1	43	43.8	31.6	59.6	
Brown County	589	57.4	52.9	62.3	448	43.6	39.6	47.8	
Buffalo County	47	53.9	39.6	72.2	39	43.5	30.9	59.9	
Burnett County	66	54.3	41.8	69.9	74	60.6	47.4	76.8	
Calumet County	79	42.0	33.2	52.4	65	34.9	26.9	44.5	
Chippewa County	195	62.1	53.6	71.5	146	46.3	39.1	54.5	
Clark County	111	56.6	46.5	68.5	76	37.1	29.1	46.7	
Columbia County	208	68.7	59.7	78.8	154	50.2	42.5	58.8	
Crawford County	91	85.9	69.0	105.9	65	60.4	46.6	77.4	
Dane County	1,022	58.2	54.6	61.9	759	43.6	40.5	46.8	
Dodge County	251	53.7	47.3	60.8	219	46.5	40.6	53.2	
Door County	129	61.7	51.5	73.6	87	41.4	33.1	51.4	
Douglas County	165	68.1	58.1	79.4	166	66.9	57.1	78.0	
Dunn County	83	46.8	37.3	58.0	69	38.4	29.8	48.6	
Eau Claire County	238	52.8	46.2	60.0	198	43.1	37.3	49.6	
Florence County	21	62.2	38.4	97.4	17	49.2	28.5	81.2	
Fond du Lac County	354	64.8	58.2	72.0	256	46.3	40.8	52.4	
Forest County	63	88.9	68.1	114.8	46	64.6	47.1	87.3	
Grant County	169	59.7	51.0	69.6	132	45.3	37.9	53.8	
Green County	116	61.4	50.7	73.7	81	41.5	32.9	51.8	
Green Lake County	100	77.1	62.5	94.2	70	53.4	41.5	68.0	
Iowa County	65	53.5	41.3	68.3	58	47.5	36.1	61.5	
Iron County	49	93.7	68.8	126.5	35	61.8	42.8	88.8	
Jackson County	84	77.1	61.4	95.6	50	45.2	33.5	59.8	
Jefferson County	230	60.2	52.6	68.5	189	49.1	42.3	56.7	
Juneau County	133	86.0	71.9	102.2	109	68.6	56.3	83.0	
Kenosha County	545	76.8	70.5	83.6	421	59.4	53.8	65.3	
Kewaunee County	55	46.5	35.0	60.9	40	33.0	23.5	45.3	
La Crosse County	340	64.4	57.7	71.6	276	51.6	45.7	58.1	
Lafayette County	53	55.4	41.4	72.8	39	40.9	29.0	56.2	
Langlade County	132	92.6	77.4	110.3	95	64.9	52.4	79.8	
Lincoln County	152	81.6	69.0	95.9	96	51.1	41.3	62.6	
Manitowoc County	257	52.1	45.9	59.0	188	37.6	32.4	43.5	
Marathon County	369	55.8	50.2	61.8	278	41.5	36.7	46.7	

		Incid	ence			Mort	ality	
	Total	Average	Confidence	e Interval	Total	Average	Confidence	e Interval
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper
Marinette County	198	68.7	59.4	79.2	157	53.2	45.2	62.5
Marquette County	118	109.8	90.6	132.3	80	74.3	58.8	93.3
Menominee County	22	136.3	81.4	211.7	13	89.7	44.4	157.4
Milwaukee County	3,499	77.3	74.7	79.9	2,594	56.8	54.6	59.0
Monroe County	152	67.1	56.8	78.7	129	56.9	47.5	67.7
Oconto County	139	64.6	54.3	76.4	104	48.6	39.7	59.0
Oneida County	195	71.8	62.0	82.9	133	49.7	41.6	59.2
Outagamie County	398	53.9	48.7	59.5	325	43.8	39.2	48.9
Ozaukee County	242	53.4	46.8	60.6	191	42.7	36.8	49.3
Pepin County	27	58.7	38.5	86.5	24	52.3	33.4	78.9
Pierce County	78	54.0	42.6	67.4	80	54.7	43.3	68.1
Polk County	139	55.9	46.9	66.1	115	46.2	38.1	55.6
Portage County	180	59.3	50.9	68.6	131	43.4	36.3	51.5
Price County	83	75.5	60.0	94.3	51	45.2	33.6	60.2
Racine County	720	75.7	70.3	81.5	508	53.5	49.0	58.4
Richland County	56	48.5	36.5	63.4	54	46.6	34.9	61.3
Rock County	622	78.8	72.7	85.3	455	57.7	52.5	63.2
Rusk County	78	79.5	62.7	99.7	51	50.7	37.6	67.3
St Croix County	141	50.1	42.1	59.2	144	52.5	44.1	61.8
Sauk County	193	61.5	53.1	70.9	146	46.2	39.0	54.4
Sawyer County	79	68.2	53.9	85.5	63	55.4	42.5	71.4
Shawano County	169	65.6	56.0	76.4	124	46.8	38.9	56.0
Sheboygan County	333	54.1	48.4	60.3	257	41.6	36.7	47.1
Taylor County	59	52.1	39.6	67.5	42	35.9	25.8	48.9
Trempealeau County	80	48.0	37.9	60.0	57	33.3	25.1	43.4
Vernon County	109	61.5	50.4	74.4	76	42.0	33.0	52.8
Vilas County	133	72.7	60.6	87.1	91	49.6	39.7	61.6
Walworth County	340	69.9	62.6	77.7	249	51.0	44.8	57.8
Washburn County	75	65.2	51.2	82.3	60	51.4	39.2	66.8
Washington County	365	62.5	56.3	69.3	271	47.0	41.5	52.9
Waukesha County	1,216	63.9	60.4	67.6	849	45.1	42.1	48.2
Waupaca County	206	63.6	55.1	73.0	169	50.7	43.3	59.1
Waushara County	119	71.7	59.3	86.2	89	53.8	43.1	66.6
Winnebago County	501	63.8	58.3	69.6	384	48.7	43.9	53.8
Wood County	313	69.6	62.1	77.9	197	42.6	36.8	49.1

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Notes: Rates are per 100,000 population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.)

County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

# Chapter 10: Melanoma of the Skin

#### Incidence

From 2000 through 2004, approximately 809 Wisconsin residents each year were diagnosed with melanoma of the skin (Table 10.1).

Melanoma incidence increased with age. The highest age-specific incidence rate was found among males aged 80-84 (Figure 10.3).

In Wisconsin, 73 percent of melanomas were diagnosed at the local stage, and 12 percent at the regional or distant stage. Fifteen percent were not staged (Figure 10.4).

Wisconsin melanoma incidence rates for both sexes were lower than national incidence rates during 2000-2004 (Figure 10.1).

### **Mortality**

The melanoma mortality rate among males for the 2000-2004 period (3.6 per 100,000) was over the twice the female rate (1.5) (Table 10.2).

During 2000-2004, the male mortality rate decreased by an annual average of 0.7 percent, while the female mortality rate decreased annually by 3.1 percent (Table 10.2).

Wisconsin mortality rates from melanoma were similar to national mortality rates (Figure 10.2).

**Table 10.1.** Melanoma of the Skin Incidence: Number of Cases, Age-Adjusted Rates, Average Percent Change (APC), by Sex, Wisconsin, 2000 - 2004

		Male			Female	-		Total	
Year of	Number	Age-Adj.		Number	Age-Adj.		Number	Age-Adj.	
Diagnosis	of Cases	Rate	APC	of Cases	Rate	APC	of Cases	Rate	APC
Annual Avg.	442	17.2	-3.9%	365	12.5	-1.9%	809	14.5	2 00/
2000-2004	443								-3.0%
2000	459	18.3	N/A	346	12.1	N/A	805	14.8	N/A
2001	455	17.9	N/A	385	13.3	N/A	840	15.2	N/A
2002	461	17.9	N/A	380	13.1	N/A	841	15.1	N/A
2003	416	15.9	N/A	374	12.7	N/A	790	13.9	N/A
2004	426	15.9	N/A	342	11.3	N/A	768	13.3	N/A

Department of Health and Family Services.

Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual Note:

Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

**Table 10.2.** Melanoma of the Skin Mortality: Number of Deaths, Age-Adjusted Rates, Average Percent Change (APC), by Sex, Wisconsin, 2000 - 2004

		Male			Female		Total		
Year of	Number	Age-Adj.		Number	Age-Adj.		Number	Age-Adj.	
Death	of Deaths	Rate	APC	of Deaths	Rate	APC	of Deaths	Rate	APC
Annual Avg. 2000-2004	90	3.6	-0.7%	50	1.5	-3.1%	140	2.4	-1.5%
2000	81	3.4	N/A	53	1.6	N/A	134	2.4	N/A
2001	95	3.8	N/A	53	1.7	N/A	148	2.6	N/A
2002	102	4.1	N/A	40	1.2	N/A	142	2.5	N/A
2003	79	3.1	N/A	58	1.8	N/A	137	2.4	N/A
2004	92	3.6	N/A	45	1.3	N/A	137	2.3	N/A

Source: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat. Note:

Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual

Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

30 Rate per 100,000 25 Population 20 15 10 5 2000 2001 2002 2003 2004 17.9 17.9 15.9 15.9 - Wis. Males 18.3 - Wis. Females 12.1 13.3 13.1 12.7 11.3 · · · U.S. Males 23.7 24.2 23.1 23.2 24.1 15.3 16.2 15.5 16.0 16.5 ■ U.S. Females

Figure 10.1 Melanoma of the Skin, Age-Adjusted Incidence Rates, by Sex, Wisconsin and United States, 2000 - 2004

## Year of Diagnosis

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

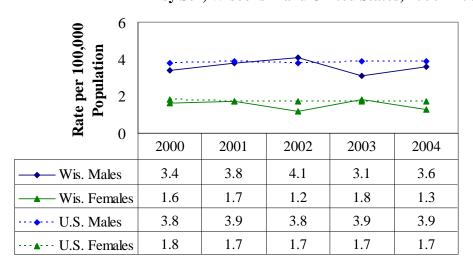


Figure 10.2. Melanoma of the Skin, Age-Adjusted Mortality Rates, by Sex, Wisconsin and United States, 2000 - 2004

#### Year of Death

Sources: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

80 Rate per 100,000 Population 70 - Male Incidence 60 Female Incidence 50 Male Mortality 40 ← Female Mortality 30 20 10 0 00-04 05-09 10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75-79 80-84 85+ Age Groups

Figure 10.3. Melanoma of the Skin, Age-Specific Incidence and Mortality Rates, By Sex, Wisconsin 2000 - 2004

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Note: Rates are per 100,000 population (2000 - 2004) for each age group and sex.

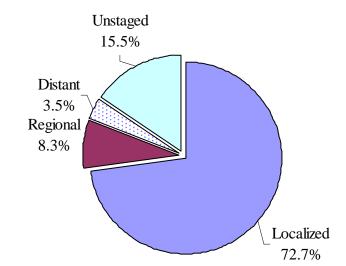


Figure 10.4. Melanoma of the Skin, Stage of Disease at Diagnosis, Wisconsin, 2000 - 2004

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin

Department of Health and Family Services.

Note: See Definitions, page 131, for definition of stage of disease at diagnosis.

20 Rate Per 100,000 15 Population 10 5 0 Females Males Total White
 ■ 17.8 13.1 15.1 0.7\* 0.4 \* $0.6^{*}$ ■ Af. Am. 1.7 \* 1.5\* N Am. Ind. 1.6\* 0.6\* ■ Asian/PI 5.7 \* 2.8\* 3.7\* 5.3 \* 2.6\* □ Hisp./Lat.

Figure 10.5. Melanoma of the Skin, Age-Adjusted
Incidence Rates, by Race, Ethnicity and Sex,
Wisconsin, 2000 - 2004

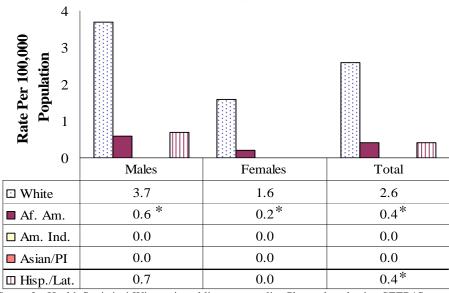
Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Notes: Rates are per 100,000 population in each group and are age-adjusted to the 2000 U.S. standard population.

Race categories are not mutually exclusive from the Hispanic/Latino origin category.

\* Rate based on small number (fewer than 20 cases) for the five-year period.

Figure 10.6. Melanoma of the Skin, Age-Adjusted
Mortality Rates, by Race, Ethnicity and Sex,
Wisconsin, 2000 - 2004



Source: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Notes: Rates are per 100,000 population in each group and are age-adjusted to the 2000 U.S. standard population.

Race categories are not mutually exclusive from the Hispanic/Latino origin category.

\* Rate based on small number (fewer than 20 deaths) for the five-year period.

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	Total	Average	Confidence	e Interval	Total	Average	Confidence	e Interval
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper
Adams County	12	8.3	4.1	15.4	0	0.0	0.0	4.0
Ashland County	7	7.4	2.9	15.5	5	4.7	1.5	11.6
Barron County	17	6.3	3.6	10.2	7	2.5	1.0	5.3
Bayfield County	5	5.2	1.7	13.1	5	5.1	1.6	12.8
Brown County	232	20.8	18.2	23.7	24	2.3	1.4	3.4
Buffalo County	6	7.3	2.7	16.3	4	4.7	1.3	12.7
Burnett County	11	9.8	4.8	18.4	5	4.1	1.3	10.6
Calumet County	25	12.2	7.9	18.1	9	4.8	2.2	9.0
Chippewa County	21	6.9	4.3	10.7	3	1.0	0.2	2.9
Clark County	25	14.5	9.4	21.4	6	3.0	1.1	6.9
Columbia County	34	11.6	8.0	16.3	13	4.4	2.3	7.6
Crawford County	11	12.3	6.0	22.4	4	3.9	1.0	10.5
Dane County	321	15.7	14.0	17.6	43	2.3	1.6	3.1
Dodge County	55	11.8	8.9	15.4	15	3.1	1.7	5.2
Door County	42	22.6	16.1	31.1	3	1.4	0.3	4.8
Douglas County	17	7.2	4.2	11.6	9	3.7	1.7	7.2
Dunn County	10	5.4	2.6	10.0	5	2.6	0.8	6.2
Eau Claire County	26	5.8	3.8	8.6	8	1.8	0.8	3.5
Florence County	1	3.4	0.1	21.9	0	0.0	0.0	16.2
Fond du Lac County	121	23.4	19.4	27.9	11	2.1	1.0	3.8
Forest County	6	11.0	3.8	24.8	2	2.6	0.3	11.3
Grant County	36	13.1	9.1	18.2	5	1.6	0.5	4.0
Green County	17	9.6	5.6	15.5	3	1.6	0.3	4.9
Green Lake County	20	18.4	11.1	28.8	5	4.3	1.3	10.5
Iowa County	15	12.3	6.8	20.4	5	4.0	1.3	9.4
Iron County	7	13.9	5.0	32.7	1	1.4	0.0	14.7
Jackson County	7	7.1	2.8	14.6	1	0.9	0.0	5.4
Jefferson County	48	12.4	9.2	16.5	18	4.8	2.8	7.6
Juneau County	14	10.4	5.6	17.6	3	2.2	0.4	6.6
Kenosha County	72	9.9	7.8	12.5	21	2.9	1.8	4.4
Kewaunee County	19	17.5	10.5	27.5	1	0.9	0.0	5.1
La Crosse County	82	15.6	12.4	19.4	12	2.1	1.1	3.7
Lafayette County	11	11.6	5.8	21.2	1	1.0	0.0	6.4
Langlade County	8	5.7	2.4	11.8	2	1.3	0.2	5.6
Lincoln County	23	13.5	8.5	20.4	5	2.8	0.9	6.7
Manitowoc County	97	20.8	16.8	25.4	14	2.8	1.5	4.8
Marathon County	77	11.6	9.1	14.5	12	1.7	0.9	3.0

		Incid	ence			Mort	ality	
	Total	Average	Confidence		Total	Average	Confidence	
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper
Marinette County	28	10.3	6.8	15.1	8	2.7	1.1	5.6
Marquette County	24	26.5	16.7	40.3	2	1.7	0.2	7.7
Menominee County	2	8.9	1.0	36.1	0	0.0	0.0	22.0
Milwaukee County	577	12.6	11.6	13.7	75	1.7	1.3	2.1
Monroe County	26	12.0	7.8	17.6	5	2.2	0.7	5.2
Oconto County	36	17.8	12.5	24.8	11	5.1	2.5	9.3
Oneida County	24	10.0	6.3	15.2	5	2.5	0.8	6.2
Outagamie County	128	15.8	13.1	18.7	27	3.4	2.2	4.9
Ozaukee County	90	19.9	15.9	24.6	12	2.7	1.4	4.8
Pepin County	3	7.4	1.5	22.3	2	5.4	0.6	19.5
Pierce County	12	6.6	3.3	11.6	5	2.7	0.9	6.3
Polk County	27	10.7	7.0	15.7	7	2.7	1.1	5.7
Portage County	25	8.0	5.2	11.8	5	1.5	0.5	3.6
Price County	11	11.4	5.6	21.2	6	5.3	1.8	12.9
Racine County	155	15.8	13.4	18.6	21	2.2	1.3	3.3
Richland County	14	13.1	7.1	22.3	4	3.7	1.0	9.9
Rock County	129	16.5	13.7	19.6	19	2.4	1.5	3.8
Rusk County	12	12.0	6.2	21.6	2	2.1	0.3	8.3
St Croix County	17	5.5	3.2	8.9	4	1.5	0.4	3.7
Sauk County	18	5.8	3.4	9.2	7	2.1	0.8	4.5
Sawyer County	5	4.6	1.5	11.5	3	2.7	0.6	8.7
Shawano County	27	11.4	7.4	16.7	10	3.9	1.8	7.3
Sheboygan County	146	24.4	20.6	28.7	19	3.2	1.9	5.0
Taylor County	11	10.3	5.1	18.5	1	0.9	0.0	5.4
Trempealeau County	20	13.9	8.4	21.6	1	0.7	0.0	3.9
Vernon County	18	12.1	7.1	19.4	4	2.6	0.7	6.7
Vilas County	22	13.8	8.3	21.9	5	3.7	1.1	9.4
Walworth County	86	18.0	14.4	22.3	21	4.3	2.6	6.6
Washburn County	8	7.4	3.1	15.3	2	1.5	0.2	6.9
Washington County	117	19.2	15.9	23.0	15	2.5	1.4	4.1
Waukesha County	428	22.0	19.9	24.2	54	2.8	2.1	3.7
Waupaca County	44	14.1	10.2	19.1	10	3.0	1.4	5.6
Waushara County	20	12.9	7.7	20.5	4	2.4	0.6	6.7
Winnebago County	122	15.2	12.6	18.2	19	2.2	1.3	3.5
Wood County	54	13.2	9.9	17.3	13	3.0	1.6	5.2

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Notes: Rates are per 100,000 population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.)

County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

# Chapter 11: Non-Hodgkin Lymphoma

#### **Incidence**

From 2000 through 2004, more than 1,000 cases of non-Hodgkin lymphoma were diagnosed each year in Wisconsin. The age-adjusted incidence rate was higher among males (22.4 per 100,000 population) than females (16.6 per 100,000) (Table 11.1).

Eighteen percent of non-Hodgkin lymphomas were diagnosed at the local stage (Figure 11.4). Seven percent of cases had regional disease and 70 percent had distant disease at the time of diagnosis.

Whites had the highest age-adjusted incidence rate of non-Hodgkin lymphoma (19.2 per 100,000) and Asians/Pacific Islanders had the lowest (7.7 per 100,000) (Figure 11.5). The rate for those of Hispanic/Latino ethnicity (of any race) was 17.8 per 100,000.

### **Mortality**

From 2000 through 2004, approximately 446 Wisconsin residents died each year from non-Hodgkin lymphoma (Table 11.2).

The Wisconsin mortality rate for non-Hodgkin lymphoma declined by 13 percent from 2000 to 2004 (from 8.6 per 100,000 to 7.5 per 100,000) (Table 11.2). The average annual percent decrease was 3.4 percent.

Consistent with incidence rates, the mortality rate for this cancer was highest among American Indians (9.9 per 100,000) and lowest among Asians/Pacific Islanders (2.2 per 100.000) (Figure 11.6).

Table. 11.1. Non-Hodgkin Lymphoma Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 2000 - 2004

		Male	•		Female			Total	
Year of	Number	Age-Adj.		Number	Age-Adj.		Number	Age-Adj.	
Diagnosis	of Cases	Rate	APC	of Cases	Rate	APC	of Cases	Rate	APC
Annual Avg. 2000-2004	560	22.4	-1.6%	524	16.6	-1.8%	1,083	19.2	-1.7%
2000	552	22.9	N/A	527	17.1	N/A	1,079	19.6	N/A
2001	576	23.4	N/A	510	16.6	N/A	1,086	19.6	N/A
2002	553	22.1	N/A	546	17.2	N/A	1,099	19.5	N/A
2003	553	21.9	N/A	534	16.9	N/A	1,087	19.0	N/A
2004	564	21.8	N/A	502	15.5	N/A	1,066	18.3	N/A

Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual

Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

Table 11.2. Non-Hodgkin Lymphoma Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 2000 - 2004

		Male			Female			Total	
Year of	Number	Age-Adj.		Number	Age-Adj.		Number	Age-Adj.	
Death	of Deaths	Rate	APC	of Deaths	Rate	APC	of Deaths	Rate	APC
Annual Avg. 2000-2004	235	9.8	-4.6%	211	6.2	-2.9%	446	7.7	-3.4%
2000	251	11.0	N/A	236	7.1	N/A	487	8.6	N/A
2001	249	10.6	N/A	193	5.7	N/A	442	7.8	N/A
2002	218	9.2	N/A	209	6.1	N/A	427	7.4	N/A
2003	223	9.0	N/A	204	5.9	N/A	427	7.3	N/A
2004	234	9.4	N/A	213	6.1	N/A	447	7.5	N/A

Source: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual

Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

25 Rate per 100,000 Population 20 15 10 2000 2001 2002 2003 2004 22.9 – Wis. Males 23.4 22.121.9 21.8 Wis. Females 17.1 16.6 17.2 16.9 15.5 ··· U.S. Males 24.1 24.1 23.7 24.1 24.7 15.9 16.1 16.7 17.1 17.1 ■ U.S. Females

Figure 11.1. Non-Hodgkin Lymphoma, Age-Adjusted Incidence Rates, by Sex, Wisconsin and United States, 2000 - 2004

## Year of Diagnosis

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

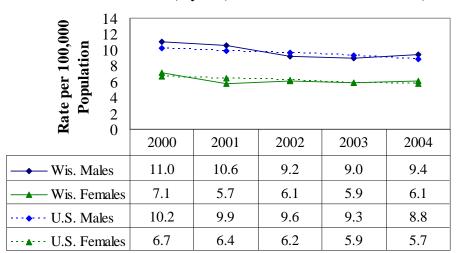


Figure 11.2. Non-Hodgkin Lymphoma, Age-Adjusted Mortality Rates, by Sex, Wisconsin and United States, 2000 - 2004

#### Year of Death

Sources: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

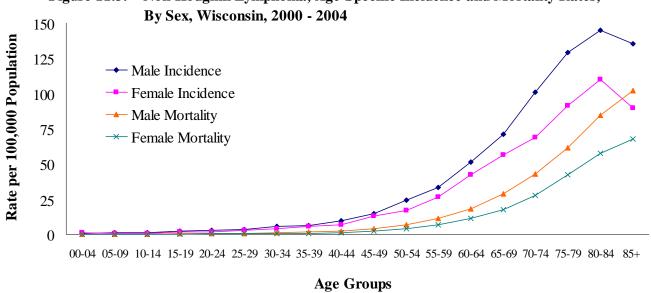
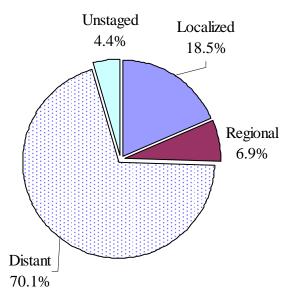


Figure 11.3. Non-Hodgkin Lymphoma, Age-Specific Incidence and Mortality Rates,

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Note: Rates are per 100,000 population (2000-2004) for each age group and sex.

Figure 11.4. Non-Hodgkin Lymphoma, Stage of Disease at Diagnosis, Wisconsin, 2000 - 2004



Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Source:

Department of Health and Family Services.

Note: See Definitions, page 131, for definition of stage of disease at diagnosis.

30 25 Rate Per 100,000 Population 20 15 10 5 Females Total Males 19.2 ■ White 22.4 16.7 12.5 14.0 ■ Af. Am. 15.5 26.2\* 13.2\* 18.4 Nam. Ind. ■ 7.8 \* 7.6\* 7.7 ■ Asian/PI 15.5 17.8 20.3 ■ Hisp./Lat.

Figure 11.5. Non-Hodgkin Lymphoma, Age-Adjusted Incidence Rates, by Race, Ethnicity and Sex, Wisconsin, 2000 - 2004

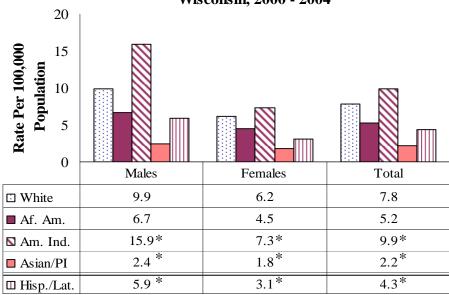
Department of Health and Family Services.

Notes: Rates are per 100,000 population in each group and are age-adjusted to the 2000 U.S. standard population.

Race categories are not mutually exclusive from the Hispanic /Latino origin category.

\* Rate based on small number (fewer than 20 cases) for the five-year period.

Figure 11.6. Non-Hodgkin Lymphoma, Age-Adjusted Mortality Rates, by Race, Ethnicity and Sex, Wisconsin, 2000 - 2004



Source: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Notes: Rates are per 100,000 population in each group and are age-adjusted to the 2000 U.S. standard population.

Race categories are not mutually exclusive from the Hispanic /Latino origin category.

\* Rate based on small number (fewer than 20 deaths) for the five-year period.

Table 11.3. Non-Hodgkin Lymphoma Incidence and Mortality: Number of Cases and Deaths, Average										
Age-A	djusted Ra	tes and Co	nfidence Int	tervals, by	County, W	isconsin, 20	000-2004			
		Incid	l			Mortality				
	Total	Average	Confidence		Total	Average	Confidence			
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper		
Adams County	18	12.3	7.2	20.1	5	3.7	1.2	9.3		
Ashland County	20	23.3	14.1	36.1	3	3.3	0.6	10.1		
Barron County	30	10.6	7.1	15.3	17	5.5	3.2	9.0		
Bayfield County	12	12.2	6.3	22.0	11	11.5	5.7	21.2		
Brown County	204	19.3	16.7	22.1	88	8.5	6.8	10.5		
Buffalo County	13	14.5	7.7	25.5	6	6.7	2.4	15.2		
Burnett County	13	11.2	5.9	19.9	6	5.2	1.9	12.2		
Calumet County	27	14.2	9.3	20.7	9	4.8	2.2	9.1		
Chippewa County	69	21.8	16.9	27.6	25	7.6	4.9	11.3		
Clark County	38	20.0	14.1	27.7	14	6.7	3.6	11.5		
Columbia County	58	19.8	15.0	25.7	18	6.0	3.5	9.6		
Crawford County	20	19.1	11.6	29.9	8	7.2	3.1	14.7		
Dane County	339	18.3	16.3	20.3	134	7.6	6.3	9.0		
Dodge County	97	20.4	16.5	25.0	56	11.5	8.6	14.9		
Door County	52	24.6	18.4	32.6	16	7.4	4.2	12.5		
Douglas County	40	16.2	11.6	22.2	13	5.0	2.6	8.7		
Dunn County	24	12.6	8.0	18.8	12	5.6	2.8	10.0		
Eau Claire County	58	12.8	9.7	16.6	28	6.1	4.0	8.8		
Florence County	4	13.0	3.4	35.9	2	5.4	0.6	23.9		
Fond du Lac County	116	21.7	17.9	26.0	54	9.7	7.3	12.7		
Forest County	9	14.3	6.4	28.3	8	12.5	5.3	25.8		
Grant County	59	20.9	15.9	27.2	23	7.6	4.8	11.5		
Green County	32	17.1	11.6	24.2	15	7.6	4.3	12.8		
Green Lake County	30	22.4	15.0	32.5	14	9.8	5.3	17.1		
Iowa County	15	12.0	6.7	19.9	4	3.1	0.9	8.2		
Iron County	8	15.9	6.4	35.1	4	5.9	1.6	20.2		
Jackson County	21	20.5	12.6	31.4	4	3.6	1.0	9.6		
Jefferson County	53	13.5	10.1	17.7	37	9.3	6.5	12.8		
Juneau County	38	25.1	17.7	34.7	17	10.4	6.0	16.9		
Kenosha County	126	17.3	14.4	20.6	59	8.2	6.3	10.6		
Kewaunee County	28	24.1	16.0	35.1	12	9.6	4.9	17.1		
La Crosse County	109	20.4	16.8	24.7	45	8.2	6.0	11.0		
Lafayette County	18	18.1	10.7	29.0	7	7.1	2.9	15.1		
Langlade County	28	18.7	12.3	27.6	15	9.6	5.3	16.4		
Lincoln County	40	22.2	15.8	30.4	17	9.4	5.4	15.2		
Manitowoc County	86	17.5	13.9	21.7	40	7.6	5.4	10.4		
Marathon County	133	20.1	16.8	23.8	55	8.2	6.1	10.6		

	Incidence			Mortality				
	Total	Average	Confidence	e Interval	Total	Average	Confidence Interval	
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper
Marinette County	51	18.2	13.4	24.2	17	5.4	3.1	8.9
Marquette County	22	21.6	13.3	33.6	5	4.5	1.4	11.5
Menominee County	2	8.5	1.0	35.0	2	17.7	2.0	57.8
Milwaukee County	962	20.8	19.5	22.2	388	8.2	7.4	9.0
Monroe County	45	19.9	14.5	26.8	18	7.9	4.7	12.6
Oconto County	36	17.0	11.9	23.7	20	9.4	5.7	14.7
Oneida County	68	26.8	20.7	34.3	31	12.1	8.1	17.5
Outagamie County	159	20.8	17.7	24.3	63	8.2	6.3	10.5
Ozaukee County	89	19.2	15.4	23.7	35	7.8	5.4	10.9
Pepin County	6	13.8	5.0	30.8	2	4.5	0.5	17.5
Pierce County	25	16.2	10.4	24.0	14	9.7	5.3	16.2
Polk County	41	16.7	11.9	22.8	16	5.9	3.4	9.8
Portage County	67	21.6	16.7	27.4	20	6.3	3.9	9.8
Price County	16	14.5	8.3	24.4	11	9.5	4.7	18.0
Racine County	174	18.1	15.5	21.0	68	7.1	5.5	9.0
Richland County	13	11.9	6.3	20.8	10	8.0	3.8	15.2
Rock County	143	18.1	15.3	21.4	62	7.8	5.9	10.0
Rusk County	21	20.3	12.4	31.8	11	9.4	4.7	17.8
St Croix County	39	13.4	9.5	18.4	21	7.4	4.6	11.3
Sauk County	57	18.0	13.6	23.4	28	9.0	6.0	13.1
Sawyer County	20	18.3	11.1	28.9	8	7.3	3.1	15.0
Shawano County	43	17.5	12.6	23.7	20	7.7	4.7	12.1
Sheboygan County	104	16.7	13.6	20.3	41	6.4	4.6	8.7
Taylor County	24	21.7	13.9	32.6	8	6.7	2.8	13.6
Trempealeau County	26	16.2	10.5	24.0	10	5.8	2.7	11.0
Vernon County	38	20.8	14.7	28.9	18	9.3	5.5	15.0
Vilas County	26	15.5	9.9	23.6	11	5.6	2.8	10.9
Walworth County	94	19.0	15.4	23.3	37	7.2	5.1	10.0
Washburn County	21	19.6	11.8	30.8	15	12.3	6.9	21.0
Washington County	130	22.1	18.4	26.2	47	8.1	5.9	10.7
Waukesha County	426	22.4	20.3	24.7	153	8.3	7.0	9.7
Waupaca County	58	18.2	13.7	23.6	30	8.6	5.8	12.5
Waushara County	30	18.7	12.5	27.2	9	5.3	2.4	10.5
Winnebago County	161	20.3	17.2	23.7	56	6.7	5.0	8.7
Wood County	95	21.4	17.3	26.3	24	4.6	2.9	7.0

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Notes: Rates are per 100,000 population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.)

County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

# **Chapter 12: Cancer of the Ovary**

#### Incidence

From 2000 to 2004, 447 women annually were diagnosed with ovarian cancer in Wisconsin. The Wisconsin age-adjusted incidence rates of ovarian cancer were higher than national rates for those five years (Figure 12.1).

During this five-year period, ovarian cancer was the sixth most frequently diagnosed cancer among women in Wisconsin (Figure 1.8).

Cancer of the ovary was diagnosed at the local stage of disease in 20 percent of cases, and at a regional or distant stage in 70 percent of cases (Figure 12.4).

The highest age-adjusted ovarian cancer incidence rate by race was that of Asians/Pacific Islanders (16.0 per 100,000 females) and the lowest was among American Indians (7.7 per 100,000 females). The ovarian cancer incidence rate for Hispanics/Latinas (of any race) was 11.8 per 100,000 females (Figure 12.5).

### **Mortality**

Ovarian cancer was the fifth leading cause of cancer mortality for Wisconsin women, with an annual average of 287 deaths each year (Figure 1.8).

Ovarian cancer was the fourth leading cause of cancer mortality among women aged 45-64 and the fifth leading cause of cancer mortality among women aged 65 and older (Table 1.5).

Ovarian cancer mortality rates varied by race, ranging from 9.2 per 100,000 female population among white women to 3.1 per 100,000 among American Indian women. Hispanic/Latina women (of any race) had an ovarian cancer mortality rate of 4.4 per 100,000.

By county, ovarian cancer mortality rates for the five-year period ranged from 3.0 per 100,000 females in Washburn County to 14.7 per 100,000 females in Pepin County (Table 13.3).

Table 12.1. Ovarian Cancer Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), Wisconsin, 2000 - 2004

Year of	Number	Age-Adj.	
Diagnosis	of Cases	Rate	APC
Annual Average 2000-2004	447	14.8	-3.5%
2000	449	15.2	N/A
2001	496	16.7	N/A
2002	409	13.6	N/A
2003	469	15.3	N/A
2004	414	13.2	N/A

Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin female population and are age-adjusted to the 2000 U.S. standard population. Annual

Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

Table 12.2. Ovarian Cancer Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), Wisconsin, 2000 - 2004

Year of	Number	Age-Adj.	
Death	of Deaths	Rate	APC
Annual Average 2000-2004	287	9.0	-0.6%
2000	294	9.5	N/A
2001	262	8.3	N/A
2002	299	9.5	N/A
2003	289	8.8	N/A
2004	289	9.0	N/A

Source: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Note: Rates are per 100,000 Wisconsin female population and are age-adjusted to the 2000 U.S. standard population. Annual

Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

25 Rate per 100,000 Female 20 Population 15 10 5 0 2000 2001 2002 2003 2004 Wis. Females 15.2 16.7 13.6 15.3 13.2 14.2 14.4 13.5 13.3 12.6 - U.S. Females

Figure 12.1. Ovarian Cancer, Age-Adjusted Incidence Rates, Wisconsin and United States, 2000 - 2004

## Year of Diagnosis

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 female population, and are age-adjusted to the 2000 U.S. standard population.

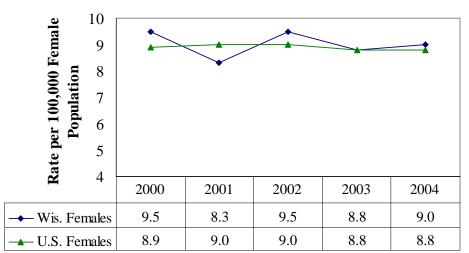


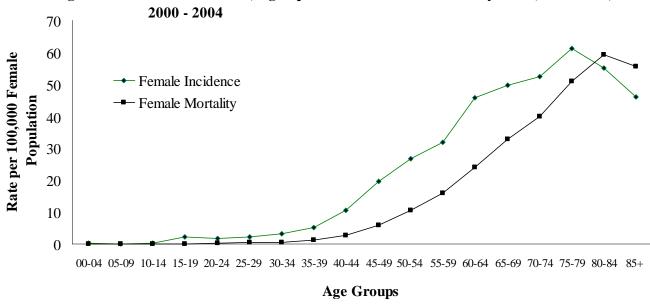
Figure 12.2. Ovarian Cancer, Age-Adjusted Mortality Rates, Wisconsin and United States, 2000 - 2004

#### Year of Death

Sources: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat; and Surveillance,

Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 female population, and are age-adjusted to the 2000 U.S. standard population.



Ovarian Cancer, Age-Specific Incidence and Mortality Rates, Wisconsin, **Figure 12.3.** 

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Note: Rates are per 100,000 female population (2000-2004) for each age group.

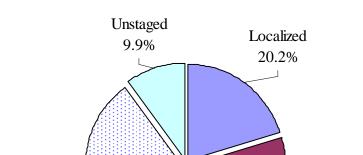


Figure 12.4. Ovarian Cancer, Stage of Disease at Diagnosis, Wisconsin, 2000 - 2004

Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin

Department of Health and Family Services.

See Definitions, page 131, for definition of stage of disease at diagnosis. Note:

Distant

45.0%

Regional

24.9%

Rate Per 100,000 Female 16 14 Population 12 10 8 6 Females 14.9 White 10.8 ■ Af. Am. 7.7\* Am. Ind. 16.0 ■ Asian/PI ☐ Hisp./Lat. 11.8

Figure 12.5. Ovarian Cancer, Age-Adjusted Incidence Rates, by Race and Ethnicity, Wisconsin, 2000 - 2004

Department of Health and Family Services.

Notes: Rates are per 100,000 female population in each group and are age-adjusted to the 2000 U.S. standard population.

Race categories are not mutually exclusive from Hispanic/Latino origin category.

\* Rate based on small number (fewer than 20 cases) for the five-year period.

Figure 12.6. Ovarian Cancer, Age-Adjusted Mortality Rates, by Race and Ethnicity, Wisconsin, 2000 - 2004

Source: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Notes: Rates are per 100,000 female population in each group and are age-adjusted to the 2000 U.S. standard population.

Race categories are not mutually exclusive from Hispanic/Latino origin category.

\* Rate based on small number (fewer than 20 deaths) for the five-year period.

Age-A	Adjusted Ra		onfidence I	ntervals,	by County,			4
	Incidence Total Average Confidence Interval			TD . 1	Mort	Confidence Interval		
	Total Cases	Average Rate	Lower	Upper	Total Deaths	Average Rate	Lower	Upper
Adams County	4	5.9	1.5	17.0	4	5.8	1.5	16.9
Ashland County	9	18.7	8.5	36.2	6	12.7	4.6	28.2
Barron County	15	10.0	5.4	17.0	8	4.5	1.9	9.7
Bayfield County	2	4.3	0.5	17.6	5	10.6	3.4	26.3
Brown County	79	13.3	10.5	16.7	41	6.6	4.7	9.0
Buffalo County	3	7.9	1.6	23.8	4	9.2	2.5	25.0
Burnett County	7	10.9	4.3	24.9	5	7.7	2.5	20.6
Calumet County	14	13.0	7.1	21.9	13	11.8	6.3	20.3
Chippewa County	22	13.1	8.2	20.0	20	11.4	6.9	18.0
Clark County	15	14.6	7.9	24.8	10	8.2	3.7	16.1
Columbia County	21	13.2	8.1	20.4	18	11.0	6.5	17.7
Crawford County	11	20.0	9.9	37.0	4	6.6	1.7	18.8
Dane County	176	16.8	14.4	19.5	100	9.8	8.0	12.0
Dodge County	32	13.3	9.0	18.9	21	8.7	5.3	13.4
Door County	15	16.8	9.1	29.0	6	5.1	1.8	12.7
Douglas County	10	7.5	3.5	14.1	7	5.0	2.0	10.8
Dunn County	9	8.9	4.0	17.2	8	8.0	3.4	16.0
Eau Claire County	28	10.8	7.1	15.7	19	6.6	3.9	10.5
Florence County	2	11.1	1.3	49.2	2	10.7	1.3	48.4
Fond du Lac County	40	14.8	10.5	20.2	30	10.3	6.9	14.8
Forest County	5	13.5	4.1	35.1	3	8.7	1.6	28.9
Grant County	14	9.5	5.1	16.5	10	5.1	2.4	10.1
Green County	15	15.5	8.6	25.9	9	8.1	3.6	15.9
Green Lake County	13	22.0	11.5	38.7	2	3.1	0.4	12.6
Iowa County	7	11.8	4.8	24.5	7	10.7	4.2	22.5
Iron County	1	3.4	0.1	29.9	3	8.8	1.8	36.3
Jackson County	6	11.5	4.2	25.6	8	14.0	6.0	28.3
Jefferson County	31	14.9	10.1	21.2	12	5.7	2.9	10.0
Juneau County	9	12.5	5.6	24.3	5	6.3	2.0	15.5
Kenosha County	52	13.2	9.9	17.4	43	10.9	7.9	14.7
Kewaunee County	12	17.6	8.9	31.9	7	9.4	3.7	20.8
La Crosse County	40	13.8	9.8	18.8	25	8.2	5.2	12.2
Lafayette County	7	16.0	6.3	33.7	5	9.9	3.2	24.4
Langlade County	11	15.6	7.5	29.2	7	9.5	3.7	21.1
Lincoln County	22	23.3	14.4	35.9	8	7.1	2.9	15.2
Manitowoc County	46	17.4	12.6	23.6	31	10.6	7.1	15.3
Marathon County	51	14.9	11.1	19.6	31	8.9	6.0	12.7

		Incid	ence			Mort	ality	
	Total	Average	Confidence	e Interval	Total	Average	Confidence Interval	
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper
Marinette County	16	11.2	6.3	18.8	17	10.7	6.1	17.8
Marquette County	7	14.4	5.6	31.7	3	4.8	1.0	17.1
Menominee County	1	9.9	0.3	58.8	1	9.9	0.3	58.8
Milwaukee County	395	15.3	13.8	16.9	275	10.3	9.1	11.6
Monroe County	15	13.2	7.3	22.1	9	7.4	3.4	14.4
Oconto County	11	10.0	4.9	18.3	11	9.6	4.8	17.8
Oneida County	21	16.0	9.8	25.2	15	10.6	5.9	18.3
Outagamie County	69	16.7	12.9	21.1	48	11.4	8.4	15.1
Ozaukee County	34	14.2	9.7	20.0	26	10.2	6.7	15.1
Pepin County	6	23.2	8.1	54.7	4	14.7	3.8	42.4
Pierce County	13	16.0	8.4	27.5	4	4.2	1.1	11.2
Polk County	12	10.1	5.2	17.9	16	12.6	7.2	20.8
Portage County	18	10.1	5.9	16.2	9	5.1	2.3	9.9
Price County	8	14.0	5.9	29.8	4	6.2	1.6	19.1
Racine County	73	14.1	11.0	17.8	44	8.4	6.1	11.3
Richland County	11	16.5	7.9	31.2	5	8.7	2.7	21.5
Rock County	64	15.0	11.5	19.2	37	8.1	5.7	11.2
Rusk County	5	9.2	2.8	23.6	5	10.2	3.3	25.3
St Croix County	22	13.1	8.2	19.9	11	7.0	3.5	12.6
Sauk County	33	20.1	13.7	28.5	24	12.7	8.0	19.3
Sawyer County	6	10.4	3.8	24.2	6	10.7	3.9	24.9
Shawano County	18	14.0	8.2	22.6	12	8.1	4.1	14.9
Sheboygan County	51	16.1	12.0	21.3	36	10.6	7.4	14.9
Taylor County	7	11.6	4.6	24.8	3	4.9	1.0	15.4
Trempealeau County	16	19.4	10.9	32.1	10	10.5	4.8	20.4
Vernon County	12	13.3	6.8	24.0	8	6.7	2.8	14.5
Vilas County	17	21.7	12.0	37.0	4	4.9	1.1	15.2
Walworth County	54	20.9	15.7	27.4	28	10.1	6.7	14.8
Washburn County	5	9.1	2.9	22.9	2	3.0	0.3	13.8
Washington County	48	15.1	11.1	20.1	24	7.3	4.7	11.0
Waukesha County	195	18.3	15.8	21.0	101	9.3	7.6	11.4
Waupaca County	23	15.1	9.5	23.0	18	10.3	6.0	16.6
Waushara County	12	13.9	7.2	25.5	11	12.7	6.3	24.0
Winnebago County	52	12.2	9.1	16.0	39	9.1	6.4	12.4
Wood County	31	13.9	9.4	19.9	16	6.3	3.6	10.5

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Notes: Rates are per 100,000 female population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.)

County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

#### **Chapter 13: Cancer of the Pancreas**

#### Incidence

In 2000-2004, an average of 650 cases of pancreatic cancer were diagnosed each year in Wisconsin (Table 13.1).

Age-adjusted incidence rates for pancreatic cancer in Wisconsin were similar to U.S. incidence rates (Figure 13.1).

The majority of pancreatic cancers (70%) were diagnosed at the later stages of disease, either regional or distant. A relatively high proportion of cases (19%) were reported as unknown in stage at the time of diagnosis (Figure 13.4).

In Wisconsin during 2000-2004, African Americans experienced the highest incidence rate of pancreatic cancer (17.6 per 100,000 population), followed by American Indians (11.5 per 100,000) and whites (11.2 per 100,000). Hispanics/Latinos (of any race) had an incidence rate of 9.6 per 100,000 population (Figure 13.5).

#### **Mortality**

From 2000 through 2004, more than 600 Wisconsin residents died annually from pancreatic cancer (Table 13.2).

Males had a higher age-adjusted mortality rate (12.4 per 100,000 population) than females (9.7 per 100,000) (Table 13.2).

African Americans had the highest pancreatic cancer mortality rate (15.9 per 100,000), followed by whites (10.9 per 100,000), Asians/Pacific Islanders (7.3 per 100,000) and American Indians (5.7 per 100,000). Hispanics/Latinos (of any race) had a pancreatic cancer mortality rate of 5.9 per 100,000 (Figure 13.6).

During 2000-2004, county mortality rates for pancreatic cancer varied greatly, from 0.0 per 100,000 in Menominee (no deaths) to 18.9 per 100,000 in Pepin County (Table 13.3).

**Table 13.1.** Pancreatic Cancer Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 2000 - 2004

		Male			Female			Total	
Year of	Number	Age-Adj.		Number	Age-Adj.		Number	Age-Adj.	
Diagnosis	of Cases	Rate	APC	of Cases	Rate	APC	of Cases	Rate	APC
Annual Avg.									
2000-2004	316	12.8	2.5%	335	10.1	-2.4%	650	11.4	0.2%
2000	262	11.0	N/A	328	10.3	N/A	590	10.6	N/A
2001	333	13.7	N/A	338	10.4	N/A	671	11.9	N/A
2002	321	13.1	N/A	348	10.6	N/A	669	11.7	N/A
2003	334	13.5	N/A	348	10.2	N/A	682	11.8	N/A
2004	328	12.8	N/A	312	9.2	N/A	640	10.9	N/A

Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Source:

Department of Health and Family Services.

Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual Note: Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

**Table 13.2.** Pancreatic Cancer Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 2000 - 2004

		Male	•		Female	•		Total	-
Year of	Number	Age-Adj.		Number	Age-Adj.		Number	Age-Adj.	
Death	of Deaths	Rate	APC	of Deaths	Rate	APC	of Deaths	Rate	APC
Annual Avg. 2000-2004	304	12.4	1.0%	324	9.7	0.4%	628	11.0	0.7%
2000	288	12.1	N/A	290	8.8	N/A	578	10.4	N/A
2001	288	12.1	N/A	337	10.2	N/A	625	11.1	N/A
2002	316	12.8	N/A	345	10.4	N/A	661	11.6	N/A
2003	313	12.7	N/A	321	9.5	N/A	634	10.9	N/A
2004	314	12.4	N/A	327	9.4	N/A	641	10.8	N/A

National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual Note:

Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

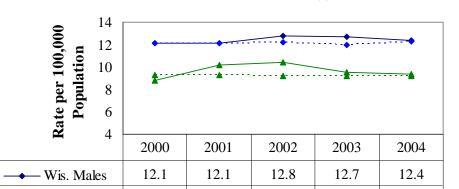
15 Rate per 100,000 Population 10 5 2000 2001 2002 2003 2004 Wis. Males 11.0 13.7 13.1 13.5 12.8 Wis. Females 10.3 10.4 10.6 10.2 9.2 ··· U.S. Males 13.3 13.1 13.0 12.6 13.3 9.8 9.9 10.4 10.4 9.8 ■ U.S. Females

Figure 13.1 Pancreatic Cancer, Age-Adjusted Incidence Rates, by Sex, Wisconsin and United States, 2000 - 2004

#### Year of Diagnosis

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.



10.2

12.1

9.3

Figure 13.2 Pancreatic Cancer, Age-Adjusted Mortality Rates, by Sex, Wisconsin and United States, , 2000 - 2004

#### Year of Death

10.4

12.2

9.2

9.5

12.0

9.2

9.4

12.3

9.2

Sources: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

8.8

12.1

9.3

Wis. Females

U.S. Males

▲ U.S. Females

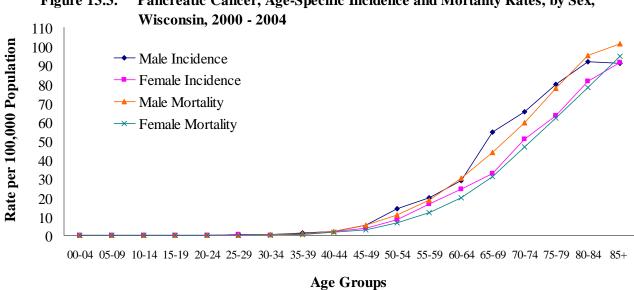
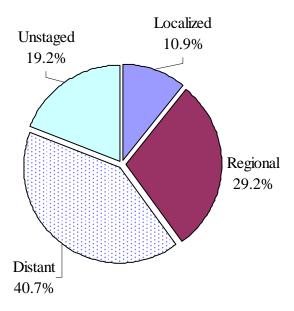


Figure 13.3. Pancreatic Cancer, Age-Specific Incidence and Mortality Rates, by Sex,

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Rates are per 100,000 population (2000-2004) for each age group and sex. Note:

Figure 13.4. Pancreatic Cancer, Stage of Disease at Diagnosis, Wisconsin, 2000 - 2004



Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Source:

Department of Health and Family Services.

Note: See Definitions, page 131, for definition of stage of disease at diagnosis.

20 Rate Per 100,000 Population 15 10 5 Females Total Males White 12.6 10.0 11.2 17.0 17.7 17.6 ■ Af. Am. 10.1\* 11.7\* 11.5 Am. Ind. 9.2 \* 11.7\* 10.2\* Asian/PI ■ Hisp./Lat. 11.7 7.6 \* 9.6

Figure 13.5. Pancreatic Cancer, Age-Adjusted Incidence Rates, by Race, Ethnicity and Sex, Wisconsin 2000 - 2004

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Notes: Rates are cases per 100,000 population in each group and are age-adjusted to the 2000 U.S. standard population.

Race categories are not mutually exclusive from Hispanic/Latino origin category.

\* Rate based on small number (fewer than 20 cases) for the five-year period.

18 Rate Per 100,000 16 14 Population 12 10 8 6 4 2 Total Males Females 10.9 White
 ■ 12.4 9.6 15.9 Af. Am. 16.4 15.0 Nam. Ind. ■ 3.2 \* 6.9\* 5.7\* 7.6 \* 7.2\* 7.3\* Asian/PI □ Hisp./Lat. 9.3 \*2.9\* 5.9

Figure 13.6. Pancreatic Cancer, Age-Adjusted Mortality Rates, by Race, Ethnicity and Sex, Wisconsin, 2000 - 2004

Source: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Notes: Rates are per 100,000 population in each group and are age-adjusted to the 2000 U.S. standard population.

Race categories are not mutually exclusive from Hispanic/Latino origin category.

\* Rate based on small number (fewer than 20 deaths) for the five-year period.

Table 13.3. Pancreatic Cancer Incidence and Mortality: Number of Cases and Deaths, Average									
Age-A	Adjusted Ra	ates and C	onfidence I	ntervals,	by County,	Wisconsii	n, 2000-200	4	
		Incid	ence			Mort	ality		
	Total	Average	Confidence		Total	Average	Confidence		
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper	
Adams County	21	13.5	8.3	21.4	23	15.0	9.4	23.2	
Ashland County	11	10.9	5.4	19.9	9	8.9	4.1	17.4	
Barron County	29	9.4	6.3	13.7	35	11.2	7.8	15.9	
Bayfield County	13	12.9	6.9	22.8	11	11.3	5.6	20.9	
Brown County	103	9.8	8.0	11.9	100	9.6	7.8	11.7	
Buffalo County	10	10.6	5.1	20.2	12	13.2	6.8	23.6	
Burnett County	9	7.8	3.5	15.7	11	9.7	4.8	18.3	
Calumet County	9	5.0	2.3	9.4	16	8.7	4.9	14.1	
Chippewa County	39	12.1	8.6	16.7	40	12.3	8.8	16.8	
Clark County	27	12.6	8.2	18.6	22	9.8	6.1	15.1	
Columbia County	37	12.0	8.4	16.6	30	9.7	6.6	14.0	
Crawford County	10	9.2	4.4	17.4	8	6.8	2.9	14.1	
Dane County	217	12.2	10.6	14.0	206	11.8	10.2	13.5	
Dodge County	48	10.0	7.3	13.3	48	10.0	7.4	13.3	
Door County	17	8.2	4.8	13.6	18	8.6	5.1	14.1	
Douglas County	29	11.8	7.9	17.1	28	11.3	7.5	16.4	
Dunn County	21	11.8	7.3	18.1	20	11.2	6.8	17.2	
Eau Claire County	48	10.3	7.6	13.8	46	9.9	7.2	13.2	
Florence County	2	5.4	0.7	24.1	1	2.5	0.1	19.8	
Fond du Lac County	55	10.1	7.6	13.2	49	8.7	6.4	11.6	
Forest County	2	2.9	0.4	12.0	5	7.8	2.3	19.5	
Grant County	35	11.8	8.2	16.6	35	11.6	8.0	16.3	
Green County	23	11.2	7.1	17.1	22	10.7	6.6	16.4	
Green Lake County	23	17.7	11.1	27.0	24	18.2	11.6	27.7	
Iowa County	13	10.8	5.7	18.5	8	6.7	2.9	13.2	
Iron County	6	10.9	3.9	27.5	6	10.4	3.8	26.6	
Jackson County	10	8.9	4.3	16.6	13	11.6	6.2	20.2	
Jefferson County	52	13.2	9.9	17.4	53	13.6	10.2	17.8	
Juneau County	23	13.9	8.8	21.1	21	12.6	7.8	19.6	
Kenosha County	86	12.0	9.6	14.8	94	13.2	10.7	16.2	
Kewaunee County	18	15.1	8.9	24.2	16	13.1	7.4	21.5	
La Crosse County	52	9.7	7.2	12.7	47	8.8	6.5	11.8	
Lafayette County	10	10.3	4.9	19.3	12	12.5	6.5	22.2	
Langlade County	22	14.0	8.7	21.8	22	14.1	8.7	21.9	
Lincoln County	27	13.9	9.1	20.5	20	10.0	6.1	15.7	
Manitowoc County	77	15.0	11.8	18.8	66	12.5	9.7	16.0	
Marathon County	68	10.0	7.8	12.7	66	9.7	7.5	12.3	

		Incid	ence			Mort	ality	
	Total	Average	Confidence		Total	Average	Confidence	
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper
Marinette County	27	9.2	6.1	13.6	34	11.4	7.9	16.1
Marquette County	13	12.0	6.3	21.4	10	10.3	4.9	19.7
Menominee County	0	0.0	0.0	22.0	0	0.0	0.0	22.0
Milwaukee County	632	13.7	12.6	14.8	591	12.7	11.7	13.7
Monroe County	24	10.0	6.4	15.0	21	8.7	5.4	13.4
Oconto County	15	7.2	4.0	11.9	20	9.4	5.7	14.7
Oneida County	33	12.1	8.3	17.3	31	11.4	7.7	16.4
Outagamie County	84	10.9	8.6	13.4	76	9.9	7.8	12.4
Ozaukee County	56	12.6	9.5	16.4	52	11.8	8.8	15.5
Pepin County	4	9.6	2.6	25.3	9	18.9	8.5	37.3
Pierce County	13	8.4	4.4	14.3	14	9.2	5.0	15.4
Polk County	28	10.9	7.2	15.9	28	10.8	7.2	15.8
Portage County	25	7.9	5.1	11.7	27	8.5	5.6	12.4
Price County	12	10.7	5.5	19.5	11	9.5	4.7	18.0
Racine County	116	11.9	9.8	14.3	106	10.9	8.9	13.2
Richland County	8	6.6	2.8	13.5	10	8.4	4.0	16.0
Rock County	80	10.2	8.1	12.7	80	10.2	8.1	12.7
Rusk County	14	12.9	7.0	22.4	13	12.0	6.3	21.3
St Croix County	33	11.2	7.6	15.7	37	12.8	9.0	17.6
Sauk County	23	6.8	4.3	10.3	26	7.5	4.9	11.2
Sawyer County	9	7.5	3.4	14.9	9	7.8	3.6	15.5
Shawano County	25	9.2	5.9	13.8	27	9.9	6.5	14.6
Sheboygan County	65	10.5	8.1	13.4	68	10.9	8.4	13.8
Taylor County	8	6.4	2.7	13.1	9	7.0	3.2	13.8
Trempealeau County	19	11.5	6.8	18.2	25	14.5	9.3	21.7
Vernon County	21	11.9	7.3	18.4	20	10.7	6.5	16.9
Vilas County	23	12.3	7.7	19.3	21	11.7	7.1	18.7
Walworth County	41	8.4	6.0	11.4	41	8.5	6.1	11.5
Washburn County	14	11.8	6.4	20.6	17	14.2	8.3	23.6
Washington County	82	13.8	10.9	17.1	71	12.0	9.4	15.2
Waukesha County	221	11.7	10.2	13.4	200	10.6	9.2	12.2
Waupaca County	29	8.9	5.9	12.9	25	7.3	4.7	11.0
Waushara County	20	11.9	7.2	18.8	23	13.9	8.8	21.2
Winnebago County	86	10.8	8.7	13.4	89	11.2	9.0	13.8
Wood County	47	10.0	7.3	13.5	35	7.3	5.1	10.3

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Notes: Rates are per 100,000 population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.)

County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

#### **Chapter 14: Prostate Cancer**

#### Incidence

During 2000-2004, each year more than 4,100 Wisconsin men were diagnosed with prostate cancer. It was the most commonly diagnosed cancer in Wisconsin men (Figure 1.7).

The majority of prostate cancer cases (78%) were diagnosed at the early (localized) stage of disease (Figure 14.4).

Prostate cancer was rarely diagnosed before age 40. Incidence increased dramatically with age and peaked at ages 70-74 (Figure 14.3).

Data from 2000-2004 show that prostate cancer incidence in Wisconsin was lower than the national incidence for this disease (Figure 14.1).

Among racial groups, African American males had the highest age-adjusted incidence rate (252.3 per 100,000 male population) and Asian/Pacific Islander males had the lowest incidence rate (74.3 per 100,000). Hispanic/Latino males (of any race) had an incidence rate of 115.4 per 100,000 (Figure 14.5).

#### **Mortality**

Prostate cancer is second only to lung cancer as a cause of cancer deaths among Wisconsin males (Figure 1.7), with an average of 654 deaths attributed to prostate cancer each year from 2000 to 2004 (Table 14.2).

Parallel to prostate cancer incidence, the highest age-adjusted mortality rate was among African Americans (52.6 per 100,000) and the lowest was among Asians/Pacific Islanders (9.8 per 100.000). Men of Hispanic/Latino ethnicity (of any race) experienced the lower mortality rate, 7.6 per 100,000 (Figure 14.6).

From 2000 to 2004, Wisconsin's prostate cancer mortality rate decreased 8.9% (from 31.3 to 28.5 per 100,000) (Table 14.2).

In 2004, the prostate cancer mortality rate in Wisconsin (28.5 per 100,000 males) was higher than the national rate (25.4 per 100,000) (Figure 14.2).

Table 14.1. Prostate Cancer Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), Wisconsin, 2000 - 2004

Year of	Number	Age-Adj.	
Diagnosis	of Cases	Rate	APC
Annual Average 2000-2004	4,124	164.5	-3.9%
2000	4,153	171.9	N/A
2001	4,314	175.9	N/A
2002	4,238	169.6	N/A
2003	4,013	157.2	N/A
2004	3,902	148.6	N/A

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin

Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin male population and are age-adjusted to the 2000 U.S. standard population. Annual

Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

Table 14.2. Prostate Cancer Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), Wisconsin, 2000 - 2004

Year of	Number	Age-Adj.	
Death	of Deaths	Rate	APC
Annual Average 2000-2004	654	29.6	-1.7%
2000	661	31.3	N/A
2001	628	29.0	N/A
2002	660	29.9	N/A
2003	668	29.4	N/A
2004	654	28.5	N/A

Source: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Note: Rates are per 100,000 Wisconsin male population and are age-adjusted to the 2000 U.S. standard population. Annual

Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

200 **Rate per 100,000 Male** 180 Population 160 140 120 100 2000 2001 2002 2003 2004 Wis. Males 171.9 175.9 169.6 157.2 148.6 182.8 179.6 166.6 159.5 - U.S. Males 181.3

Figure 14.1. Prostate Cancer, Age-Adjusted Incidence Rates, Wisconsin and United States, 2000 - 2004

#### Year of Diagnosis

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 male population, and are age-adjusted to the 2000 U.S. standard population.

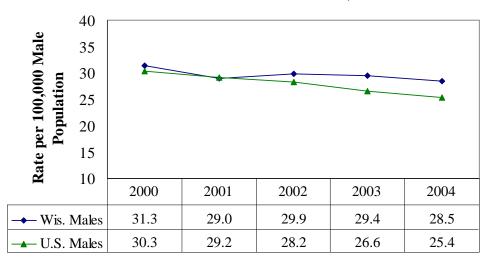


Figure 14.2. Prostate Cancer, Age-Adjusted Mortality Rates, Wisconsin and United States, 2000 - 2004

#### Year of Death

Sources: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

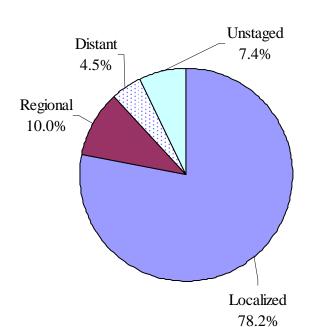
Note: Rates are per 100,000 male population, and are age-adjusted to the 2000 U.S. standard population.

1050 **Rate per 100,000 Male** 900 Incidence Mortality 750 Population 600 450 300 150 0 00-04 05-09 10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75-79 80-84 85+ Age Groups

Figure 14.3. Prostate Cancer, Age-Specific Incidence and Mortality Rates, Wisconsin, 2000 - 2004

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Rates are per 100,000 male population (2000-2004) for each age group. Note:



**Figure 14.4.** Prostate Cancer, Stage of Disease at Diagnosis, Wisconsin, 2000 - 2004

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

See Definitions, page 131, for definition of stage of disease at diagnosis. Note:

2000 - 2004 275 250 **Rate Per 100,000 Male** 225 200 175 150 125 100 75 50 Males 160.0 White ■ Af. Am. 252.3 N Am. Ind. 156.5 74.3 ■ Asian/PI 115.4 □ Hisp./Lat.

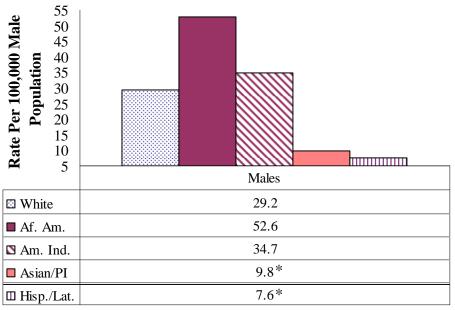
**Figure 14.5.** Prostate Cancer, Age-Adjusted Incidence Rates, by Race and Ethnicity, Wisconsin,

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin

Department of Health and Family Services.

Notes: Rates are per 100,000 male population in each group and are age-adjusted to the 2000 U.S. standard population. Race categories are not mutually exclusive from Hispanic/Latino origin category.

**Figure 14.6. Prostate Cancer, Age-Adjusted Mortality** Rates, by Race and Ethnicity, Wisconsin, 2000 - 2004



National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Rates are per 100,000 male population in each group and are age-adjusted to the 2000 U.S. standard population. Notes:

Race categories are not mutually exclusive from Hispanic/Latino origin category.

Rate based on small number (fewer than 20 deaths) for the five-year period.

			lence and M				· ·	
	Age-Adjust		nd Confiden	ice Interva	als, by Cou			004
		Incid				Mort		
	Total Cases	Average Rate	Confidence		Total Deaths	Average Rate	Confidence	
Adams County			Lower	Upper			Lower	Upper
Ashland County	56	71.8	53.8	94.7	21	34.8	21.1	54.3
· ·	78	180.3	142.5	225.3	15	34.5	19.3	57.1
Barron County	191	149.4	128.9	172.3	42	33.8	24.4	45.8
Bayfield County	71	141.3	110.1	179.7	15	34.7	19.3	58.2
Brown County	845	183.2	170.9	196.1	109	29.1	23.9	35.1
Buffalo County	67	162.9	126.1	207.5	9	24.2	11.1	46.4
Burnett County	85	142.6	113.4	178.2	13	25.3	13.3	44.6
Calumet County	147	167.3	141.0	196.9	17	23.9	13.8	37.8
Chippewa County	222	158.0	137.8	180.3	39	31.0	22.0	42.4
Clark County	154	173.4	147.0	203.1	19	19.9	12.0	31.2
Columbia County	194	142.9	123.4	164.6	33	26.7	18.4	37.6
Crawford County	79	158.2	125.2	197.8	12	25.6	13.2	45.3
Dane County	1,327	164.6	155.7	174.0	198	30.8	26.6	35.3
Dodge County	291	137.1	121.8	153.8	66	32.9	25.4	41.8
Door County	192	205.2	177.1	237.0	16	18.6	10.6	30.9
Douglas County	148	140.7	118.8	165.4	41	43.0	30.8	58.4
Dunn County	103	126.5	103.1	153.3	25	32.2	20.8	47.3
Eau Claire County	255	132.0	116.2	149.3	58	31.7	24.0	40.9
Florence County	17	96.9	55.9	160.8	5	32.4	10.3	80.7
Fond du Lac County	441	187.7	170.5	206.1	84	39.1	31.1	48.3
Forest County	47	138.7	101.3	186.7	10	34.8	16.6	65.2
Grant County	180	141.5	121.5	163.9	36	31.2	21.8	43.3
Green County	106	127.0	103.9	153.7	24	30.4	19.5	45.2
Green Lake County	96	163.1	132.1	199.8	15	26.3	14.7	44.0
Iowa County	68	122.3	94.8	155.1	6	12.0	4.4	25.9
Iron County	53	201.1	150.3	267.8	12	48.0	24.7	89.6
Jackson County	71	137.0	106.8	173.1	11	23.2	11.5	41.5
Jefferson County	317	183.3	163.5	204.8	40	25.8	18.3	35.0
Juneau County	112	151.3	124.4	182.5	19	28.1	16.8	44.3
Kenosha County	504	151.5	145.6	174.0	74	28.5	22.3	35.7
Kewaunee County	110			248.2	13	24.8		
La Crosse County		205.7 181.4	169.0	199.8	47	24.8	13.2	42.5
Lafayette County	416		164.3				16.6	30.0
Langlade County	47	108.5	79.6	144.7	9	21.4	9.7 5.2	41.0
Lincoln County	80	119.7	94.9	149.6	8	12.4	5.3	25.1
<u> </u>	131	154.5	129.1	183.7	30	38.4	25.9	55.0
Manitowoc County	400	185.5	167.7	204.7	71	35.0	27.4	44.2
Marathon County	468	157.8	143.7	172.8	84	30.6	24.4	37.9

		Incid	ence		Mortality			
	Total	Average	Confidence		Total	Average	Confidence	
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper
Marinette County	255	192.5	169.6	218.0	43	34.8	25.2	47.2
Marquette County	90	173.6	139.2	214.9	16	33.6	19.0	56.0
Menominee County	20	285.1	150.5	475.9	3	72.1	9.6	210.5
Milwaukee County	3,153	167.3	161.5	173.3	510	29.2	26.7	31.9
Monroe County	164	154.5	131.6	180.2	32	34.6	23.6	48.8
Oconto County	171	163.9	140.1	190.8	24	27.2	17.4	40.4
Oneida County	200	155.1	134.2	178.8	35	32.7	22.6	46.0
Outagamie County	564	171.9	157.8	186.8	81	28.3	22.5	35.2
Ozaukee County	386	181.2	163.3	200.5	46	26.4	19.3	35.3
Pepin County	35	165.7	115.3	231.5	3	15.7	3.2	46.4
Pierce County	72	105.2	81.9	132.8	23	40.4	25.4	60.1
Polk County	155	134.9	114.4	158.1	30	28.0	18.9	40.1
Portage County	193	137.0	118.2	157.9	26	21.6	14.1	31.5
Price County	74	142.3	111.7	179.7	9	16.8	7.7	33.4
Racine County	804	189.2	176.2	202.9	96	27.2	22.0	33.2
Richland County	43	83.3	60.3	112.6	11	23.0	11.5	41.4
Rock County	574	163.0	149.9	177.1	82	27.3	21.6	33.8
Rusk County	62	132.3	101.4	170.3	22	43.9	27.5	67.6
St Croix County	102	81.9	66.3	99.8	42	41.7	29.9	56.2
Sauk County	243	174.4	153.1	197.8	46	34.4	25.2	45.9
Sawyer County	83	148.0	117.6	184.8	10	22.4	10.7	41.7
Shawano County	173	144.5	123.8	167.9	43	37.0	26.8	50.0
Sheboygan County	496	182.7	167.0	199.6	79	31.4	24.8	39.1
Taylor County	76	144.2	113.6	180.7	14	26.8	14.6	45.2
Trempealeau County	128	169.7	141.6	202.0	18	23.5	13.9	37.4
Vernon County	143	175.1	147.5	206.5	22	28.2	17.6	42.9
Vilas County	109	120.7	98.9	147.0	13	16.9	8.9	30.3
Walworth County	340	154.3	138.3	171.7	39	20.2	14.3	27.6
Washburn County	82	144.9	115.1	181.0	22	41.3	25.8	63.6
Washington County	442	164.4	149.1	180.8	59	28.5	21.6	36.7
Waukesha County	1,793	207.4	197.7	217.5	191	28.6	24.5	33.0
Waupaca County	258	173.3	152.8	195.9	80	55.3	43.8	68.9
Waushara County	96	119.6	96.4	147.2	18	26.9	15.7	43.2
Winnebago County	562	161.8	148.7	175.9	92	30.2	24.4	37.0
Wood County	310	155.5	138.6	173.9	45	23.1	16.8	30.9

Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Sources: Notes:

Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat. Rates are per 100,000 male population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.) County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates

based on small numbers.

### **Chapter 15: Cancer of the Urinary Bladder**

#### **Incidence**

In 2000-2004, an average of 1,217 cases of bladder cancer were diagnosed each year in Wisconsin (Table 15.1).

Bladder cancer was the fourth most common cancer diagnosed among Wisconsin males during 2000-2004 (Figure 1.7). The age-adjusted incidence rate for males (36.6 per 100,000) was almost four times the rate among females (10.2 per 100,000) (Table 15.1).

The majority of bladder cancers (73%) were diagnosed at the early (localized) stage of disease. A relatively low proportion of cases (17%) were diagnosed at a regional or distant stage (Figure 15.4).

By racial group, whites in Wisconsin had the highest bladder cancer incidence rate (21.8 per 100,000), followed by American Indians (13.9 per 100,000). Hispanics/Latinos (of any race) experienced a relatively low incidence rate, 11.5 per 100,000 population.

#### **Mortality**

In 2000-2004, an average of 271 Wisconsin residents died annually from bladder cancer (Table 15.2).

Males had a higher age-adjusted mortality rate (8.2 per 100,000) than females (2.3 per 100,000) during the five-year period (Table 15.2).

The bladder cancer mortality rate for males increased by 24 percent from 2000 to 2004, with an average annual increase of 3.2 percent.

Whites had the highest bladder cancer mortality rate (4.7 per 100,000), followed by African Americans and American Indians (3.8 and 3.4 per 100,000, respectively). Asians/Pacific Islanders had the lowest mortality rate (0.6 per 100,000) of any racial group. Hispanics/Latinos (of any race) also had a bladder cancer mortality rate of 0.6 per 100,000 (Figure 15.6).

Table 15.1. Bladder Cancer Incidence: Number of Cases, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 2000 - 2004

		Male			Female			Total	
Year of	Number	Age-Adj.		Number	Age-Adj.		Number	Age-Adj.	
Diagnosis	of Cases	Rate	APC	of Cases	Rate	APC	of Cases	Rate	APC
Annual Avg.									
2000-2004	885	36.6	-3.1%	332	10.2	-2.1%	1,217	21.4	-2.8%
2000	930	39.5	N/A	328	10.5	N/A	1,258	22.8	N/A
2001	866	36.5	N/A	349	10.9	N/A	1,215	21.7	N/A
2002	896	37.1	N/A	310	9.5	N/A	1,206	21.4	N/A
2003	885	36.4	N/A	371	11.2	N/A	1,256	21.8	N/A
2004	848	33.8	N/A	302	9.2	N/A	1,150	19.7	N/A

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin

Department of Health and Family Services.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

Table 15.2. Bladder Cancer Mortality: Number of Deaths, Age-Adjusted Rates, Annual Percent Change (APC), by Sex, Wisconsin, 2000 - 2004

		Male			Female			Total	
Year of	Number	Age-Adj.		Number	Age-Adj.		Number	Age-Adj.	
Death	of Deaths	Rate	APC	of Deaths	Rate	APC	of Deaths	Rate	APC
Annual Avg. 2000-2004	187	8.2	3.2%	84	2.3	-2.5%	271	4.6	1.8%
2000	164	7.5	N/A	78	2.3	N/A	242	4.3	N/A
2001	191	8.5	N/A	95	2.7	N/A	286	5.0	N/A
2002	191	8.3	N/A	78	2.2	N/A	269	4.6	N/A
2003	171	7.4	N/A	78	2.1	N/A	249	4.2	N/A
2004	220	9.3	N/A	89	2.4	N/A	309	5.1	N/A

Source: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Note: Rates are per 100,000 Wisconsin population and are age-adjusted to the 2000 U.S. standard population. Annual Percent Change (APC) represents the average annual percent change; see Definitions, page 130, for a more complete

description.

50 Rate per 100,000 Population 40 30 20 10 0 2000 2001 2002 2003 2004 39.5 36.5 37.1 36.4 Wis. Males 33.8 10.9 9.5 10.5 11.2 9.2 Wis. Females • U.S. Males 38.7 37.9 36.6 36.9 36.3 ··· ▲ · · U.S. Females 9.5 9.6 9.6 9.5 9.1

Figure 15.1 Bladder Cancer, Age-Adjusted Incidence Rates, by Sex, Wisconsin and United States, 2000 - 2004

#### Year of Diagnosis

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

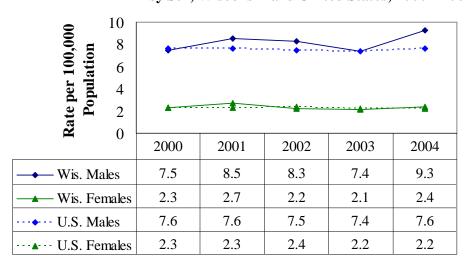


Figure 15.2 Bladder Cancer, Age-Adjusted Mortality Rates, by Sex, Wisconsin and United States, 2000 - 2004

#### Year of Death

Sources: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat; and Surveillance, Epidemiology, and End Results (SEER) Cancer Statistics Review, 1975-2004, National Cancer Institute.

Note: Rates are per 100,000 sex-specific population, and are age-adjusted to the 2000 U.S. standard population.

320 300 → Male Incidence 280 Rate per 100,000 Population 260 Female Incidence 240 Male Mortality 220 --- Female Mortality 200 180 160 140 120 100 80 60 40 20 0 00-04 05-09 10-14 15-19 20-24 25-29 30-34 35-39 40-44 45-49 50-54 55-59 60-64 65-69 70-74 75-79 80-84 85+ Age Groups

**Figure 15.3.** Bladder Cancer, Age-Specific Incidence and Mortality Rates, by Sex, Wisconsin, 2000 - 2004

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Rates are per 100,000 population (2000-2004) for each age group and sex. Note:

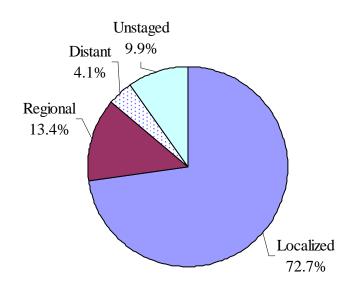


Figure 15.4. Bladder Cancer, Stage of Disease at Diagnosis, Wisconsin, 2000 - 2004

Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Source:

Department of Health and Family Services.

See Definitions, page 131, for definition of stage of disease at diagnosis. Note:

40 Rate Per 100,000 30 Population 20 10 0 Females Total Males 37.2 White
 ■ 10.3 21.8 ■ Af. Am. 16.8 6.7 10.4 8.8\* 20.9\* 13.9\* Nam. Ind. ■ 13.3\* 4.1\* 7.6\* ■ Asian/PI 5.8\* □ Hisp./Lat. 18.6 11.5

**Figure 15.5** Bladder Cancer, Age-Adjusted Incidence Rates, by Race, Ethnicity and Sex, Wisconsin, 2000-2004

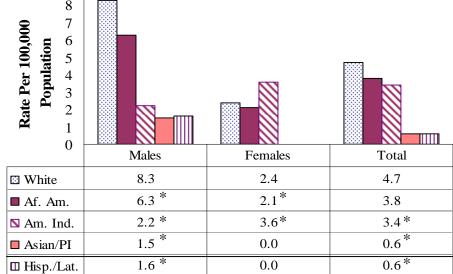
Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Notes: Rates are per 100,000 population in each group and are age-adjusted to the 2000 U.S. standard population.

Race categories are not mutually exclusive from Hispanic/Latino origin category.

Rate based on small number (fewer than 20 cases) for the five-year period.

**Figure 15.6.** Bladder Cancer, Age-Adjusted Mortality Rates, by Race, Ethnicity and Sex, Wisconsin, 2000-2004 9 8 7 6



Source: National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat. Rates are per 100,000 population in each group and are age-adjusted to the 2000 U.S. standard population. Note:

Race categories are not mutually exclusive from Hispanic/Latino origin category.

Rate based on small number (fewer than 20 deaths) for the five-year period.

Table 15.3. Bladder Cancer Incidence and Mortality: Number of Cases and Deaths, Average								
Age-A	Age-Adjusted Rates and Confidence Intervals, by County, Wisconsin, 2000-2004							4
		Incid	ence		Mortality			
	Total	Average	Confidence	e Interval	Total	Average	Confidenc	e Interval
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper
Adams County	28	19.0	12.5	28.3	4	2.9	0.8	8.3
Ashland County	13	12.8	6.7	22.4	5	4.6	1.5	11.3
Barron County	59	20.2	15.4	26.3	12	3.7	1.9	6.7
Bayfield County	20	19.6	11.9	31.0	7	6.6	2.7	14.6
Brown County	254	24.7	21.8	28.0	54	5.2	3.9	6.8
Buffalo County	15	17.3	9.6	29.1	0	0.0	0.0	5.4
Burnett County	18	14.4	8.5	23.6	3	2.3	0.5	8.2
Calumet County	48	25.4	18.7	33.7	9	4.8	2.2	9.0
Chippewa County	84	26.6	21.2	33.0	10	3.1	1.5	5.8
Clark County	46	23.1	16.8	31.0	12	5.5	2.7	9.9
Columbia County	69	22.8	17.7	28.9	19	6.1	3.7	9.6
Crawford County	26	24.7	16.1	36.5	7	6.7	2.7	14.2
Dane County	309	17.9	15.9	20.0	74	4.3	3.4	5.4
Dodge County	104	22.1	18.0	26.8	30	6.1	4.1	8.8
Door County	51	24.9	18.5	33.3	10	4.7	2.2	9.1
Douglas County	21	8.5	5.2	13.0	9	3.5	1.6	6.8
Dunn County	32	17.4	11.9	24.6	3	1.4	0.3	4.2
Eau Claire County	80	17.5	13.9	21.8	18	3.8	2.2	6.0
Florence County	6	16.9	6.2	40.1	2	5.4	0.7	24.1
Fond du Lac County	131	23.8	19.9	28.3	30	5.1	3.4	7.4
Forest County	12	16.3	8.3	29.7	1	1.3	0.0	9.5
Grant County	52	18.2	13.5	24.0	8	2.4	1.0	5.0
Green County	46	23.3	17.0	31.2	12	6.0	3.1	10.7
Green Lake County	28	20.8	13.7	30.6	7	5.2	2.1	11.4
Iowa County	26	21.3	13.9	31.3	7	5.8	2.3	12.0
Iron County	12	21.0	10.7	40.1	3	5.2	1.0	19.8
Jackson County	25	22.6	14.6	33.5	5	4.3	1.4	10.4
Jefferson County	64	16.9	13.0	21.5	23	6.0	3.8	9.1
Juneau County	38	24.9	17.6	34.4	7	4.6	1.8	9.7
Kenosha County	168	23.4	20.0	27.2	32	4.3	3.0	6.1
Kewaunee County	32	26.9	18.4	38.3	7	5.0	2.0	10.8
La Crosse County	122	22.4	18.6	26.8	17	3.1	1.8	4.9
Lafayette County	11	10.8	5.4	19.9	4	4.1	1.1	10.9
Langlade County	37	24.6	17.2	34.4	12	7.4	3.8	13.6
Lincoln County	42	22.6	16.2	30.8	6	2.8	1.0	6.5
Manitowoc County	105	20.9	17.0	25.3	21	3.9	2.4	6.1
Marathon County	128	19.1	15.9	22.8	33	4.9	3.3	6.8

	Incidence		ence			Mortality		
	Total	Average	Confidence	e Interval	Total	Average	Confidenc	e Interval
	Cases	Rate	Lower	Upper	Deaths	Rate	Lower	Upper
Marinette County	61	21.1	16.1	27.3	10	2.9	1.4	5.7
Marquette County	25	23.8	15.3	35.9	7	6.6	2.6	14.6
Menominee County	3	23.0	4.4	64.6	0	0.0	0.0	22.0
Milwaukee County	972	20.9	19.6	22.2	241	4.9	4.3	5.6
Monroe County	38	16.6	11.7	22.8	17	7.2	4.2	11.6
Oconto County	46	21.7	15.9	29.0	7	3.1	1.3	6.7
Oneida County	62	23.0	17.6	29.8	15	5.5	3.1	9.4
Outagamie County	174	23.1	19.7	26.8	28	3.5	2.3	5.1
Ozaukee County	95	20.9	16.9	25.6	17	3.8	2.2	6.2
Pepin County	9	18.6	8.4	36.7	4	7.0	1.9	20.3
Pierce County	22	14.0	8.8	21.2	8	5.3	2.3	10.2
Polk County	43	17.1	12.4	23.2	12	4.7	2.4	8.3
Portage County	64	21.0	16.1	26.8	12	3.5	1.8	6.1
Price County	20	18.2	11.1	28.8	2	1.9	0.2	7.9
Racine County	216	22.6	19.7	25.9	41	4.3	3.1	5.9
Richland County	7	6.4	2.6	13.5	6	4.6	1.7	10.8
Rock County	186	23.7	20.4	27.4	42	5.3	3.8	7.2
Rusk County	21	21.5	13.3	33.5	5	4.6	1.5	11.7
St Croix County	47	17.2	12.6	22.9	9	3.3	1.5	6.1
Sauk County	53	16.7	12.5	22.0	13	3.7	2.0	6.5
Sawyer County	24	21.1	13.5	32.0	7	6.3	2.5	13.7
Shawano County	63	24.4	18.7	31.4	15	5.1	2.9	8.7
Sheboygan County	165	26.0	22.2	30.3	42	6.3	4.6	8.6
Taylor County	29	25.2	16.8	36.5	4	3.1	0.8	8.6
Trempealeau County	28	17.3	11.4	25.2	7	4.4	1.7	9.3
Vernon County	33	17.4	11.9	24.8	9	4.6	2.1	9.1
Vilas County	30	16.1	10.8	23.8	8	4.2	1.8	9.2
Walworth County	109	22.2	18.2	26.8	37	7.2	5.1	10.0
Washburn County	21	18.0	11.1	28.2	8	6.7	2.9	14.0
Washington County	158	26.9	22.8	31.4	27	4.7	3.1	6.8
Waukesha County	469	24.8	22.6	27.1	79	4.3	3.4	5.3
Waupaca County	85	25.5	20.3	31.7	19	5.2	3.1	8.4
Waushara County	37	21.8	15.3	30.5	14	8.3	4.5	14.4
Winnebago County	188	23.4	20.2	27.1	36	4.4	3.1	6.1
Wood County	120	26.6	22.0	31.9	24	4.6	2.9	7.0

Sources: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services; and National Center for Health Statistics' Wisconsin public use mortality file, analyzed using SEER\*Stat.

Notes: Rates are per 100,000 population and are age-adjusted to the 2000 U.S. standard population. Confidence intervals show the range within which the rate is likely to occur at least 95% of the time. (See Definitions, page 130, for confidence interval definition.)

County-level data are subject to greater variation because the number of events can be small; caution is needed in interpreting rates based on small numbers.

### Appendix 1

#### **Cancer Reporting Statute (s. 255.04, Wisconsin Statutes)**

- (1) Any hospital, as defined under s. 50.33(2), any physician and any laboratory certified under 42 USC 263a shall report information concerning any person diagnosed as having cancer or a precancerous condition to the department as prescribed by the department under sub. (2).
- (2) The department shall prescribe:
  - (a) The form on which the report under sub. (1) shall be submitted.
  - (b) The time schedule under which the report under sub. (1) shall be submitted.
  - (c) The types of cancer and precancerous conditions to be reported under sub. (1).
- (3) Any information reported to the department under sub. (1) or (5) which could identify any individual who is the subject of the report or the physician submitting the report shall be confidential and may not be disclosed by the department except to the following:
  - (a) A central tumor registry in another state if the individual who is the subject of the information resides in the other state.
  - (b) A national tumor registry recognized by the department.
- (4) The report of information under sub. (1) or (5) may not be construed as a violation of any person's responsibility for maintaining the confidentiality of patient health care records, as defined under s. 146.81 (4).
- (5) The department may, to the extent feasible, collect information related to the occupation of cancer patients in order to fulfill the purpose of s. 250.04 (3) (b) 4.

#### Administrative Rule: Hospital Cancer Reporting (HFS 124.05(3) (h), Wis. Admin. Code)

Every hospital shall report to the department all malignant neoplasms that are diagnosed by the hospital and all malignant neoplasms diagnosed elsewhere if the individual is subsequently admitted to the hospital. The report of each malignant neoplasm shall be made on a form prescribed or approved by the department and shall be submitted to the department within 6 months after the diagnosis is made or within 6 months after the individual's first admission to the hospital if the neoplasm is diagnosed elsewhere, as appropriate. In this paragraph, "malignant neoplasm" means an *in situ* or invasive tumor of the human body, but does not include a squamous cell carcinoma or basal cell carcinoma arising in the skin or an in situ carcinoma of the cervix uteri.

## Appendix 2: Neoplasm Record/Report: Required Data for 2004 Diagnoses

#### Patient Identifiers and Demographics

Last Name County of Residence at diagnosis
First Name Race (up to 5 can be recorded)

Middle Name Hispanic Origin

Maiden Name Occupation/Industry (text)

Sex Date of Birth
Street Address at diagnosis Birthplace
City at diagnosis Marital Status

State at diagnosis Social Security Number

Zip Code at diagnosis

#### Administrative Fields

Medical Record Number

Tumor Registry Accession Number (if applicable)

CRS Facility Code

Facility Referred From
Facility Referred To
Class of Case

Follow-up Physician Number

#### **Tumor Characteristics**

Sequence Number Cell Type
Date of First Contact Grade
Date of Diagnosis Tumor Size

Primary Site/Subsite Metastatic Sites at time of diagnosis Laterality Stage of Disease (at diagnosis)

Diagnostic Confirmation Behavior Code (benign, noninvasive or invasive)

#### Treatment Fields Text Fields

Cancer Directed Treatment Diagnostic Fields
Non-Definitive Treatment Treatment Fields
Treatment Date Miscellaneous

Note: Per federal cancer reporting requirements established by the National Program of Cancer Registries, the above data are required on each case submitted to the Wisconsin Cancer Reporting System. Data can be submitted by filling out the Neoplasm/Record report form provided by WCRS or by submitting electronic data using a WCRS-approved record layout format.

# **Appendix 3: Cancer Reporting System Operating Procedures**

**Data Collection.** The Wisconsin Cancer Reporting System (WCRS) receives hospital information from medical records departments or tumor registries. Each records department or registry has two major responsibilities. The first is case finding. All of the hospital's newly diagnosed and/or admitted cancer cases need to be identified. As part of this identification, medical records as well as radiology, pathology, outpatient clinic and autopsy reports need to be examined to assure complete reporting. The second responsibility of the registry or records department is to report the cases identified from one or more of the above-mentioned processes to WCRS. Reporting is done either by completing the two-page Neoplasm Report Form, or by submitting electronic files using a pre-approved record layout and submission protocol.

Physicians and freestanding clinics report (1) all cancer cases they treat, and (2) those cases they diagnose if the case is not referred to a Wisconsin hospital for treatment within two months of the diagnosis date.

Reports for Wisconsin residents receiving care in Alaska, Arkansas, Arizona, California, Colorado, Florida, Illinois, Indiana, Iowa, Kentucky, Massachusetts, Michigan, Mississippi, Missouri, Montana, Texas, Washington, West Virginia and Wyoming are reported to WCRS by the central registries for those states. Minnesota hospitals with substantial numbers of Wisconsin resident cancer patients report Wisconsin cases directly to WCRS.

Finally, WCRS matches its records to the Wisconsin resident annual death file prepared by the Vital Records Section of the Bureau of Health Information and Policy to add mortality information for cases previously reported to WCRS. From that match, WCRS identifies cases where cancer is indicated on the death certificate only (DCO) but no report exists in the registry. For those DCO cases, WCRS queries the medical source listed on the death certificate (the hospital, out-of-state registry, physician or coroner who certified the death) to provide information about the cancer case that was not previously reported to WCRS. Cases for which follow-back information is not available remain DCO cases and often have incomplete or missing information about the cancer, such as the date or stage of disease at diagnosis. In this report, for DCO cases, the date of death is used as the date of diagnosis, following the current protocol practiced by NAACCR, DHHS federal publications and most state-level publications.

Supplemental Data Sources. The mortality data used in this report reflect Wisconsin resident deaths that occurred in 2000-2004 for which the underlying cause of death was a reportable cancer. SEER\*Stat public use mortality data for 2000-2004 were used in preparing this report. The original source of the mortality data on Wisconsin residents contained in the SEER\*Stat public use file is Wisconsin resident death certificates filed in the Vital Records Section, Bureau of Health Information and Policy, Wisconsin Department of Health and Family Services, which reports Wisconsin death record data to the National Center for Health Statistics.

Rate Calculations. For this report, all incidence and mortality data were calculated using the SEER\*Stat statistical package from the National Cancer Institute. Rates were age-adjusted using the direct method to the 2000 U.S. standard population. All rates are rounded to the nearest tenth; rates less than .05 are shown as 0.0. Wisconsin population estimates for 2000 through 2004 by race, by Hispanic/Latino ethnicity, and by county were provided by the National Cancer Institute as part of its SEER\*Stat statistical software package. The population estimates and methodology are available at the following Web site: www.seer.cancer.gov/popdata/.

Cancer Incidence Sites. The International Classification of Diseases for Oncology, version 2 (ICD-O-2) was used for cases diagnosed prior to 2001 and version 3 (ICD-O-3) was used for cancer cases diagnosed from 2001 to 2004. The sites in this report are based on the SEER Program's recode variables based on primary site and histology types for ICD-O-3. The complete list of SEER Site Recode ICD-O-3 Definitions is available at: <a href="https://www.seer.cancer.gov/siterecode/icdo3\_d01272003/">www.seer.cancer.gov/siterecode/icdo3\_d01272003/</a>

Cancer Mortality Sites. International Classification of Diseases, Ninth Edition (ICD-10) for coding underlying cause of death was used for cancer deaths that occurred in 1999 and subsequent years. The SEER program codes for cancer causes of death used in this report can be found at: <a href="https://www.seer.cancer.gov/codrecode/1969+\_d09172004/index.html">www.seer.cancer.gov/codrecode/1969+\_d09172004/index.html</a>

**Reportable Cases.** All primary malignant neoplasms are reportable in Wisconsin except basal cell and squamous cell carcinoma of the skin and noninvasive cancers of the cervix uteri. Benign tumors (except for the brain and central nervous system), premalignant conditions and diseases secondary to the neoplastic process are not reportable.

The incidence tables in this publication are based on Wisconsin resident cases of reportable cancer first diagnosed during the years 2000 - 2004 and reported to the Wisconsin Cancer Reporting System by January 30, 2007.

**Record Confidentiality.** In addition to protecting data release as required by the cancer reporting statute, WCRS follows strict guidelines once data are received to maintain the in-house confidentiality of patient records. Procedures include, but are not limited to, securely storing all records on the Department computer network; limiting computer access for confidential data items to only WCRS staff; and locking up all paper records, diskettes and paper or electronic output that include confidential data items. More detailed information regarding confidentiality protections may be obtained by contacting WCRS. Please note that even though WCRS, as a public health surveillance system, is classified as HIPAA-exempt (Health Insurance Portability and Accountability Act) per the HIPAA Privacy Rule (45 CFR 164.501 and 45 CFR 164.512), it follows HIPAA guidelines to the extent possible.

**Quality Assurance.** WCRS staff routinely edit cancer reports for completeness and logical consistency, and make periodic checks for consistency among multiple reports received for the same case. If an inconsistency is found, queries are sent to the reporting agent and corrections are made in the records. If more than one report is on file for the same person or tumor, the records are matched using national casemerging and consolidation protocols. This protocol allows for the most accurate and complete information on the description of the tumor cell type, extent of disease at diagnosis, method of diagnostic confirmation, types of definitive therapy, race of patient, etc.

**Completeness and Timeliness of Reports.** The completeness estimate for 2000-2003 data is 95 percent and for 2004 is 93 percent. Statewide training sessions offered by WCRS to the reporting facilities focus on increasing complete casefinding, timeliness, and compliance with the cancer reporting statute and administrative rule.

The North American Association of Central Cancer Registries (NAACCR) awarded WCRS its Gold Standard for 2000- 2003 data quality, completeness and timeliness. However, 2004 data were not awarded a NAACCR data quality standard due to incomplete "Death Certificate Only" followbacks at the time of data submission.

**Multiple Tumor Determination**. When apparent multiple neoplasms of the same primary site in one patient exist simultaneously or over a period of time, WCRS applies the following rules to determine whether more than one independent primary tumor exists:

- 1) A single lesion with multiple histologic types is considered a single primary.
- 2) An independent primary cancer of the same histologic type as one diagnosed in the same site more than one year earlier is considered a separate primary cancer, unless the physician states that it is a recurrence of the earlier cancer.
- 3) Simultaneous multiple lesions of the same histologic type within the same primary site are considered a single primary cancer.
- 4) Multiple lesions of different histologic types within a single site, whether occurring simultaneously or at different times, are considered separate primaries.
- Each side of a paired organ is considered a separate site with the following three exceptions: simultaneous ovarian tumors, simultaneous Wilm's tumors (of the kidney) and simultaneous retinoblastomas (of the eye). These exceptions are coded as a tumor of the paired organ with bilateral presentation (involvement of the tumor in both sides of a paired organ). Aside from the above exceptions, lesions in both sides of a paired organ are considered separate tumors whether occurring simultaneously or at different times unless a physician determines a) one side is metastatic from the other or b) the tumor is presenting bilaterally.

While the ICD-O codes (used to code incidence cases) are used to assign both a primary site code *and* a cell type code to every tumor, ICD-10 codes (used to code deaths) reflect either site *or* cell type. The ICD-10 has three skin tumor classifications: one for melanomas of the skin, one for Kaposi's sarcoma of the skin, and one for all other skin tumors combined. Basal cell and squamous cell carcinomas of the skin, which are not reportable to the Wisconsin Cancer Reporting System, make up the majority of these "other" skin tumors. In this publication, only reportable nonmelanoma skin cancers are included in the *incidence* tables in the site group "All Others."

### **Appendix 4: Definitions**

**Age-Adjusted Rate** - Incidence or mortality rate adjusted to account for different age distributions between populations. In this report, all rates are age-adjusted using the 2000 U.S. standard population. This publication used the direct method of calculating rates, in which the age-specific rates in the Wisconsin population are weighted by the proportionate age distribution of the standard U.S. population. Age-adjusted rates can be compared only when the same standard population is used in the calculations.

**Age-Specific Rate** - A crude rate showing the actual number of cancer cases or deaths found in a relatively narrow age group (for example, 40-45 years) per 100,000 population in that age group. Age-specific rates can be used to compare differences in incidence or mortality between age groups; an age-specific rate can also be compared to other rates for the same age group.

**Annual Percent Change (APC)** - The yearly average percent change in incidence or mortality rates during the five-year period was computed using SEER\*Stat statistical software from the National Cancer Institute. Not as subject to yearly fluctuations as the total percent of change over time, the APC provides a more reliable measure of change. The APC is calculated by fitting a least squares regression line to the natural logarithm of the rates using the year as a regressor variable; this is called the "weighted least squares method."

Cancer Incidence - New cases of cancer that occur during a specified period in a population at risk of developing the disease, expressed as the number of cases or as a rate, usually per 100,000 persons. A cancer incidence rate is the number of newly diagnosed cancers of a specific site that occurred in a specified time period, expressed as the number of cancers per 100,000 population at risk.

**Cancer Mortality** - Deaths with cancer as the underlying cause of death that occur during a specified period of time in a particular population. A cancer mortality rate is expressed as the number of deaths due to cancer in a specified site that occurred in a specified time period, per 100,000 population at risk.

**Confidence Interval -** A 95% confidence interval is commonly reported; this interval will contain the true value 95 percent of the time. The range between the lower and upper limits of the confidence interval defines with 95% probability the "true" rate. A rate with a larger confidence interval is less precise than a rate with a smaller confidence interval.

**Burden** – In this report the burden of cancer is shown by the number of new cases and/or deaths from cancer. Wisconsin's Comprehensive Cancer Control Plan has the primary goal of assessing and addressing the cancer burden in the state by reducing morbidity and mortality from cancer and reducing disparities in cancer burden among subpopulations.

**Invasive** – Describes a malignant cancer or tumor that has invaded tissue or surrounding organs.

**Patient Residence -** The data collected by WCRS reflects the patient's residence at the time of diagnosis. Mortality data are based on the decedent's county of residence at the time of death.

**Patient Race -** The race categories used in this report are 1) white, 2) African American 3) American Indian 4) Asian/Pacific Islander. Persons with unknown race are excluded from the race-based analyses. See caveats and limitations on page 132. The specific race categories are as follows:

White African American or black American Indian, Aleutian, or Eskimo Asian/Pacific Islander

Chinese Guamanian, NOS Japanese Polynesian, NOS

Filipino Tahitian Hawaiian Samoan Korean Tongan

Asian Indian, Pakistani Melanesian, NOS Vietnamese Fiji Islander Hmong New Guinean

Kampuchean Other Asian, inc. Asian, NOS

Thai and Oriental, NOS
Micronesian, NOS Pacific Islander, NOS

Chamorran

Unknown

**Patient Ethnicity** – Hispanic or Latino refers to persons of Mexican, Puerto Rican, Cuban, South or Central American, or other Spanish culture, regardless of race. See caveats and limitations, page 132.

**Stage of Disease at Diagnosis -** The stage of disease at diagnosis refers to how far a cancer had spread from the site of origin when it was diagnosed. WCRS cancer data are coded according to summary guidelines of the National Cancer Institute's Surveillance Epidemiology and End Results (SEER) program. The following staging definitions are used in this report:

In Situ A small cancer confined to the cells in which the cancer began, that does not

invade or penetrate the surrounding tissue.

Localized An invasive tumor (penetrated the surrounding tissue) that is confined to the

organ of origin.

Regional A tumor that has spread beyond the organ of origin to adjacent organs or tissue

by direct extension (penetrated directly into surrounding organs or tissues), or through the regional lymph nodes (through the lymphatic system), or both, but

appears to have spread no further.

Distant A tumor that has spread to parts of the body remote from the primary organ, or a

systemic malignancy (such as cancers in the blood, bone marrow, or lymph

system).

*Unknown/Unstaged* Insufficient information available to determine the stage of disease at diagnosis.

# **Appendix 5: Caveats/Limitations**

Geographic Boundaries. Two factors affect interpretation of geographic location tabulations. First, many Wisconsin counties have a very small number of new cancer diagnoses or deaths in a year, resulting in site-specific frequencies in the single digits. Such small numbers may easily double or triple (or decrease by equivalent amounts) from year to year. When years of data or primary sites are combined to produce larger number of events, the rates become more stable. County data in this report are averaged over the five years to provide more stable rates. Even with multiple years of data, however, the numbers may still be small and some random fluctuation is expected. To provide guidance in assessing the stability of rates, all county tables show the upper and lower limits of the confidence interval for each rate, which will include the true value 95 percent of the time. A large confidence interval indicates high variability of the "true" rate, while a small confidence interval indicates greater stability of the rate.

Second, reporting completeness and/or timeliness may vary by region. The largest reporting variations relate to out-of-state diagnosis and treatment of patients who live in the sparsely populated counties along the Wisconsin/Minnesota border and are seen in Minnesota hospitals. Reporting by Minnesota hospitals to WCRS is a voluntary process (established through memoranda of understanding that protect patient confidentiality) and is not covered under Section 255.04, Wisconsin Statutes. Therefore, the number of reports sent to WCRS from Minnesota can vary greatly from year to year.

Although cancer incidence and mortality rates vary by county in Wisconsin, the small populations in many counties preclude meaningful comparisons and conclusions. In addition to the instability of cancer rates due to small numbers, county differences in major risk factors (such as smoking) are not accounted for in WCRS data. However, when used cautiously, cancer information at the county level may prove useful in the planning and development of health care resources, educational programs and cancer control plans.

Patient Race. Historically, differences among facilities in recording patient race (information not required in medical chart, entered by proxy, patient self-reporting) have led to a number of ambiguous or unknown race codes. As training and expanded codes have been introduced in recent years, the number of incidence cases reported with unknown race has decreased. However, misclassification was found for certain racial groups. A recent linkage project found 25 percent misclassification of American Indians in WCRS cancer data, for example. Cancer cases incorrectly reported to WCRS as white were identified as American Indian through linkage with U.S. Indian Health Service lists. Data in this report reflect all American Indian cases identified through the linkage project for years 2000-2004. Therefore, higher cancer case counts and incidence rates for American Indians may be noted for some sites compared to previous Wisconsin publications.

Hispanic Ethnicity and Race. For this report, the NAACCR Hispanic Algorithm Identification Algorithm (NHIA) assigned Hispanic ethnicity to cases, using variables of birthplace, marital status, gender, race and surname to increase the number of cases identified as Hispanic in the registry during the years 2000-2004. For a complete description of NHIA version 2, visit the following Web site: <a href="http://www.naaccr.org/datastandards">http://www.naaccr.org/datastandards</a>. The application of the NHIA increased the number of Hispanic cancer cases beyond the number identified by reporting facilities. The NHIA was developed and tested by NAACCR and endorsed by the Centers for Disease Control and Prevention to correct for documented under-reporting of Hispanic cases by facilities. Caution should be used when comparing rates for Hispanics/Latinos with the rates for race groups because ethnicity and race are not mutually exclusive categories in this report. Hispanics who identify themselves as white or any other racial group are included in the race category as well as in the Hispanic category.

# **Appendix 6: Wisconsin Population Tables**

Wisconsin Population Estimates by 5-Year Age Group and Sex: 2000

Age	Male	Female
0-4	174,435	166,755
5-9	192,840	183,392
10-14	206,245	196,081
15-19	209,283	198,653
20-24	185,124	177,259
25-29	169,269	162,990
30-34	188,012	183,344
35-39	217,019	216,763
40-44	222,672	220,033
45-49	202,258	198,607
50-54	170,459	168,867
55-59	125,348	129,348
60-64	100,079	105,874
65-69	85,477	95,953
70-74	78,531	94,546
75-79	61,418	85,586
80-84	38,883	66,183
85+	27,726	69,117
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Source: National Cancer Institute's SEER\*Stat at: <a href="www.seer.cancer.gov/popdata/">www.seer.cancer.gov/popdata/</a>

## Wisconsin Population Estimates by 5-Year Age Group and Sex: 2001

Age	Male	Female
0-4	171,776	163,990
5-9	186,442	177,503
10-14	203,642	193,365
15-19	208,749	198,705
20-24	195,218	187,226
25-29	166,403	158,522
30-34	186,713	181,473
35-39	212,456	211,244
40-44	226,395	225,006
45-49	207,218	204,402
50-54	181,555	179,164
55-59	129,434	132,860
60-64	102,320	108,037
65-69	85,067	94,996
70-74	77,813	94,005
75-79	61,903	85,137
80-84	39,231	65,911
85+	29,281	71,270

Source: National Cancer Institute's SEER\*Stat at: <a href="www.seer.cancer.gov/popdata/">www.seer.cancer.gov/popdata/</a>

Wisconsin Population Estimates by 5-Year Age Group and Sex: 2002

Age	Male	Female
0-4	173,303	165,411
5-9	183,891	175,071
10-14	203,925	193,823
15-19	209,090	198,895
20-24	201,219	193,530
25-29	166,978	158,086
30-34	183,304	177,431
35-39	206,181	204,473
40-44	226,450	225,993
45-49	211,314	208,666
50-54	183,991	181,420
55-59	140,168	142,818
60-64	105,376	111,471
65-69	85,279	95,242
70-74	76,129	92,378
75-79	62,999	84,772
80-84	39,842	66,921
85+	30,335	72,962
Source: National Car	oor Instituto's SEED*Stat at: w	VIV. COOR CONCOR GOV

Source: National Cancer Institute's SEER\*Stat at: <a href="www.seer.cancer.gov/popdata/">www.seer.cancer.gov/popdata/</a>

### Wisconsin Population Estimates by 5-Year Age Group and Sex: 2003

Age	Male	Female
0-4	173,336	164,904
5-9	179,349	171,340
10-14	201,493	191,409
15-19	208,338	198,748
20-24	206,236	197,929
25-29	171,960	162,233
30-34	179,836	173,760
35-39	200,642	198,060
40-44	226,238	225,844
45-49	216,036	213,993
50-54	189,176	186,384
55-59	146,999	148,997
60-64	110,664	117,345
65-69	86,622	96,155
70-74	74,695	90,272
75-79	63,580	84,983
80-84	40,629	66,311
85+	31,678	75,618

Source: National Cancer Institute's SEER\*Stat at: <a href="www.seer.cancer.gov/popdata/">www.seer.cancer.gov/popdata/</a>

Wisconsin Population Estimates by 5-Year Age Group and Sex: 2004

Age	Male	Female
0-4	173,997	164,979
5-9	176,190	168,578
10-14	197,703	188,207
15-19	208,255	198,390
20-24	207,848	199,921
25-29	179,126	168,961
30-34	176,070	169,638
35-39	195,586	192,050
40-44	225,230	224,903
45-49	219,883	217,827
50-54	194,249	192,356
55-59	155,712	156,965
60-64	114,581	121,421
65-69	88,725	97,932
70-74	73,003	87,923
75-79	63,957	84,419
80-84	41,840	67,096
85+	32,607	77,405

Source: National Cancer Institute's SEER\*Stat at: <a href="https://www.seer.cancer.gov/popdata/">www.seer.cancer.gov/popdata/</a>

Wisconsin Population Estimates by County, Averaged, 2000 - 2004

County	Population	County	Population
Adams	20,326	Marinette	43,376
Ashland	16,768	Marquette	14,759
Barron	45,385	Menominee	4,602
Bayfield	15,112	Milwaukee	933,672
Brown	231,890	Monroe	41,553
Buffalo	13,827	Oconto	36,645
Burnett	16,109	Oneida	37,021
Calumet	42,351	Outagamie	165,716
Chippewa	56,683	Ozaukee	84,085
Clark	33,868	Pepin	7,307
Columbia	53,630	Pierce	37,555
Crawford	17,073	Polk	42,744
Dane	440,938	Portage	67,297
Dodge	86,910	Price	15,537
Door	28,237	Racine	191,175
Douglas	43,722	Richland	18,183
Dunn	40,736	Rock	154,193
Eau Claire	93,826	Rusk	15,294
Florence	5,073	St Croix	68,686
Fond du Lac	97,967	Sauk	56,073
Forest	9,978	Sawyer	16,554
Grant	49,529	Shawano	40,988
Green	34,136	Sheboygan	113,283
Green Lake	19,175	Taylor	19,667
Iowa	23,109	Trempealeau	27,217
Iron	6,777	Vernon	28,368
Jackson	19,342	Vilas	21,727
Jefferson	76,978	Walworth	95,227
Juneau	24,944	Washburn	16,371
Kenosha	154,183	Washington	121,056
Kewaunee	20,443	Waukesha	369,671
La Crosse	107,955	Waupaca	52,318
Lafayette	16,247	Waushara	24,039
Langlade	20,821	Winnebago	158,064
Lincoln	29,954	Wood	75,384
Manitowoc	82,388		
Marathon	126,867	STATE TOTAL	5,438,665

Source: National Cancer Institute's SEER\*Stat at: <a href="www.seer.cancer.gov/popdata/">www.seer.cancer.gov/popdata/</a>

# Wisconsin Population by Race, Age Group and Sex, Averaged, 2000 - 2004

White			A	African American			
Age	Male	Female	Age	Male	Female		
0-4	148,288	140,966	0-4	17,758	17,040		
5-9	157,487	149,766	5-9	18,247	17,606		
10-14	175,069	165,983	10-14	18,788	18,191		
15-19	183,741	175,394	15-19	16,637	15,378		
20-24	176,792	168,576	20-24	14,400	14,900		
25-29	151,615	142,439	25-29	11,964	12,893		
30-34	164,320	157,817	30-34	11,704	12,746		
35-39	189,389	186,209	35-39	11,018	12,363		
40-44	209,764	206,851	40-44	10,662	12,315		
45-49	198,225	193,825	45-49	9,146	10,575		
50-54	173,640	169,882	50-54	7,170	8,342		
55-59	132,702	134,097	55-59	4,685	5,649		
60-64	101,667	106,790	60-64	3,377	4,294		
65-69	82,656	91,226	65-69	2,502	3,497		
70-74	73,369	88,057	70-74	1,949	2,719		
75-79	60,981	82,330	75-79	1,304	1,918		
80-84	39,230	64,895	80-84	606	1,127		
85+	29,735	71,796	85+	402	1,079		

American	Indian/
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	merican Indi Alaska Nativ		Asia	n/Pacific Is	lander
Age	Male	Female	Age	Male	Female
0-4	2,341	2,274	0-4	4,982	4,927
5-9	2,474	2,334	5-9	5,535	5,471
10-14	2,839	2,708	10-14	5,905	5,695
15-19	2,705	2,587	15-19	5,659	5,319
20-24	2,360	2,332	20-24	5,577	5,365
25-29	1,991	1,942	25-29	5,177	4,885
30-34	2,058	1,958	30-34	4,706	4,609
35-39	2,032	2,095	35-39	3,938	3,850
40-44	2,016	2,107	40-44	2,955	3,083
45-49	1,640	1,741	45-49	2,330	2,558
50-54	1,279	1,361	50-54	1,797	2,053
55-59	907	965	55-59	1,238	1,487
60-64	661	723	60-64	899	1,022
65-69	453	549	65-69	624	783
70-74	286	398	70-74	431	651
75-79	207	298	75-79	279	434
80-84	93	175	80-84	157	287
85+	70	178	85+	118	221

Source: National Cancer Institute's SEER\*Stat at: <a href="www.seer.cancer.gov/popdata/">www.seer.cancer.gov/popdata/</a>

Wisconsin Population by Ethnicity, Age Group and Sex, Averaged, 2000 - 2004

Hispanic						
Age	Male	Female				
0-4	13,059	12,690				
5-9	11,904	11,203				
10-14	10,387	9,876				
15-19	10,301	8,889				
20-24	14,525	10,497				
25-29	13,753	9,969				
30-34	11,296	8,392				
35-39	8,781	6,933				
40-44	7,085	5,822				
45-49	5,329	4,482				
50-54	3,760	3,234				
55-59	2,461	2,221				
60-64	1,532	1,549				
65-69	1,074	1,167				
70-74	824	892				
75-79	566	632				
80-84	285	372				
85+	222	375				

Source: National Cancer Institute's SEER\*Stat at: <a href="www.seer.cancer.gov/popdata/">www.seer.cancer.gov/popdata/</a>

2000 U.S. Standard Million Population

Age Group	Standard Population
0-4	69,135
5-9	72,533
10-14	73,032
15-19	72,169
20-24	66,478
25-29	64,529
30-34	71,044
35-39	80,762
40-44	81,851
45-49	72,118
50-54	62,716
55-59	48,454
60-64	38,793
65-69	34,264
70-74	31,773
75-79	26,999
80-84	17,842
85 and older	15,508
Total Population	1,000,000

Source: 2000 U.S. Census, Population Estimates Branch, U.S. Bureau of the Census. Note: The bolded age group is the heaviest weighted group.

# **Map of Wisconsin Counties**



Appendix 7: Supplemental Table A										
		2000		2001		2002		2003		2004
	Count	Column %	Count	Column %	Count	Column %	Count	Column %	Count	Column %
Lip	53	0.20%	45	0.17%	41	0.16%	36	0.14%	36	0.14%
Tongue	118	0.45%	170	0.63%	143	0.54%	172	0.65%	177	0.69%
Salivary Gland	65	0.25%	62	0.23%	64	0.24%	73	0.28%	60	0.23%
Floor of Mouth	48	0.18%	43	0.16%	49	0.19%	47	0.18%	47	0.18%
Gum and Other Mouth	104	0.40%	114	0.42%	89	0.34%	114	0.43%	75	0.29%
Nasopharynx	21	0.08%	30	0.11%	26	0.10%	24	0.09%	23	0.09%
Tonsil	67	0.25%	78	0.29%	81	0.31%	89	0.34%	81	0.32%
Oropharynx	26	0.10%	32	0.12%	27	0.10%	39	0.15%	35	0.14%
Hypopharynx	69	0.26%	44	0.16%	42	0.16%	54	0.20%	61	0.24%
Other Oral Cavity and Pharynx	15	0.06%	12	0.04%	14	0.05%	15	0.06%	12	0.05%
Esophagus	349	1.33%	342	1.26%	334	1.26%	345	1.30%	346	1.35%
Stomach	396	1.51%	390	1.44%	363	1.37%	397	1.50%	322	1.25%
Small Intestine	94	0.36%	93	0.34%	117	0.44%	123	0.47%	86	0.33%
Colon excluding Rectum	2,433	9.25%	2,299	8.50%	2,222	8.41%	2,318	8.77%	2,008	7.82%
Rectum and Rectosigmoid Junction	819	3.11%	785	2.90%	805	3.05%	753	2.85%	736	2.87%
Anus, Anal Canal and Anorectum	47	0.18%	52	0.19%	67	0.25%	77	0.29%	67	0.26%
Liver	197	0.75%	209	0.77%	235	0.89%	241	0.91%	269	1.05%
Intrahepatic Bile Duct	76	0.29%	59	0.22%	57	0.22%	37	0.14%	51	0.20%
Gallbladder	65	0.25%	67	0.25%	78	0.30%	45	0.17%	74	0.29%
Other Biliary	106	0.40%	112	0.41%	99	0.37%	89	0.34%	98	0.38%
Pancreas	590	2.24%	671	2.48%	669	2.53%	682	2.58%	640	2.49%
Retroperitoneum	15	0.06%	7	0.03%	23	0.09%	18	0.07%	15	0.06%
Peritoneum, Omentum and Mesentery	39	0.15%	47	0.17%	42	0.16%	40	0.15%	32	0.12%
Other Digestive Organs	13	0.05%	16	0.06%	18	0.07%	17	0.06%	13	0.05%
Nose, Nasal Cavity and Middle Ear	32	0.12%	29	0.11%	43	0.16%	31	0.12%	40	0.16%
Larynx	224	0.85%	231	0.85%	206	0.78%	214	0.81%	224	0.87%
Lung and Bronchus	3,527	13.41%	3,668	13.56%	3,718	14.07%	3,786	14.32%	3,618	14.09%
Pleura	65	0.25%	65	0.24%	67	0.25%	56	0.21%	71	0.28%
Trachea, Mediastinum and Other Respiratory Organs	11	0.04%	15	0.06%	9	0.03%	8	0.03%	12	0.05%
Bones and Joints	49	0.04%	59	0.00%	54	0.03%	58	0.03%	44	0.03%
Soft Tissue including Heart	168	0.19%	144	0.22 %	145	0.20%	147	0.22%	173	0.17 %
Melanoma of the Skin	805	3.06%	840	3.11%	841	3.18%	790	2.99%	768	2.99%
Other Non-Epithelial Skin	90	0.34%	66	0.24%	67	0.25%	57	0.22%	64	0.25%
Breast	4,162	15.83%	4,218	15.60%	3,955	14.96%	3,802	14.38%	3,609	14.05%
Cervix Uteri	306	1.16%	213	0.79%	193	0.73%	190	0.72%	196	0.76%
Corpus Uteri	770	2.93%	791	2.92%	792	3.00%	785	2.97%	758	2.95%
Uterus, NOS	49	0.19%	47	0.17%	30	0.11%	29	0.11%	32	0.12%
Ovary	449	1.71%	496	1.83%	409	1.55%	469	1.77%	414	1.61%
Vagina	16	0.06%	24	0.09%	19	0.07%	18	0.07%	17	0.07%
Vulva	63	0.00%	74	0.03%	59	0.07 %	63	0.07 %	62	0.07 %
Other Female Genital Organs	17	0.06%	21	0.08%	16	0.06%	20	0.08%	12	0.05%
Prostate	4,153	15.79%	4,314	15.95%	4,239	16.04%	4,013	15.18%	3,905	15.20%
Testis	169	0.64%	173	0.64%	182	0.69%	181	0.68%	189	0.74%
Penis					14		17	0.06%	18	0.07%
Other Male Genital Organs	18	0.07% 0.01%	15 2	0.06% 0.01%	1	0.05% 0.00%	5	0.00%	11	0.07 %
Urinary Bladder	1,258	4.71%	1,215	4.43%	1,206	4.48%	1,256	4.67%	1,150	4.48%
Kidney and Renal Pelvis	694	2.64%	765	2.83%	761	2.88%	825	3.12%	813	3.17%
Ureter	33	0.13%	40	2.65% 0.15%	30	0.11%	39	0.15%	35	0.14%
Other Urinary Organs	15	0.13%	16	0.15%	5	0.11%	6	0.13%	7	0.14%
Eye and Orbit	62	0.00%	65	0.00%	52	0.02 %	52	0.02 %	48	0.03%
Brain and Other Nervous System	396	1.51%	406	1.50%	396	1.50%	378	1.43%	380	1.48%
Thyroid	396	1.51%	398	1.47%	421	1.59%	448	1.69%	490	1.91%
Other Endocrine including Thymus	39	0.15%	330	0.12%	40	0.15%	48	0.18%	28	0.11%
Hodgkin Lymphoma	173	0.15%	168	0.12%	173	0.15%	177	0.16%	165	0.11%
Non-Hodgkin Lymphoma	1,079	4.10%	1,086	4.02%	1,099	4.16%	1,087	4.11%	1,066	4.15%
Myeloma	250	0.95%	323	1.19%	306	1.16%	306	1.16%	324	1.26%
Lymphocytic Leukemia	352	1.34%	395	1.19%	394	1.10%	401	1.10%	324	1.27%
Myeloid and Monocytic Leukemia	339	1.34%	395 368	1.46%	394	1.49%	334	1.52%	319	1.21%
Other Leukemia	53 574	0.20%	69 700	0.26%	58 921	0.22%	74	0.28%	72 861	0.28%
Miscellaneous	574	2.18%	799	2.95%	831	3.14%	890	3.37%	861	3.35%
Total	26,684	100.00%	27,429	100.00%	26,897	100.00%	26,905	100.00%	25,686	100.00%

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Notes: For SEER Site ICD-O-3 definitions see <a href="http://seer.cancer.gov/siterecode/icd03\_d01272003">http://seer.cancer.gov/siterecode/icd03\_d01272003</a>. Table counts include cases with unknown sex

Supplemental Table B. Number and	l Percent	of Cancer D	eaths by	Individual P	rimary Sit	e, Wisconsi	n, <mark>2000-</mark> 20	004		
	7	2000	2	2001	2	2002	2	2003		2004
	Count	Column %	Count	Column %	Count	Column %	Count	Column %	Count	Column %
Lip	2	0.02%	0	0.00%	1	0.01%	1	0.01%	5	0.05%
Tongue	34	0.32%	27	0.25%	43	0.40%	30	0.28%	33	0.30%
Salivary Gland	17	0.16%	17	0.16%	17	0.16%	12	0.11%	11	0.10%
Floor of Mouth	3	0.03%	5	0.05%	3	0.03%	1	0.01%	5	0.05%
Gum and Other Mouth	27	0.25%	29	0.27%	29	0.27%	27	0.25%	37	0.34%
Nasopharynx	9	0.08%	10	0.09%	14	0.13%	7	0.07%	8	0.07%
Tonsil Oropharynx	14 8	0.13% 0.08%	11 12	0.10% 0.11%	8 14	0.07% 0.13%	13 21	0.12% 0.20%	11 9	0.10% 0.08%
Hypopharynx	5	0.05%	5	0.11%	14	0.13%	4	0.20%	15	0.06%
Other Oral Cavity and Pharynx	20	0.03 %	29	0.03%	16	0.15%	27	0.04%	19	0.14%
Esophagus	237	2.23%	309	2.87%	296	2.73%	292	2.74%	309	2.85%
Stomach	224	2.11%	219	2.03%	166	1.53%	215	2.02%	208	1.92%
Small Intestine	18	0.17%	30	0.28%	28	0.26%	20	0.19%	19	0.17%
Colon excluding Rectum	999	9.39%	935	8.68%	874	8.07%	881	8.27%	818	7.53%
Rectum and Rectosigmoid Junction	177	1.66%	193	1.79%	191	1.76%	193	1.81%	188	1.73%
Anus, Anal Canal and Anorectum	6	0.06%	8	0.07%	3	0.03%	8	0.08%	10	0.09%
Liver	169	1.59%	162	1.50%	179	1.65%	192	1.80%	192	1.77%
Intrahepatic Bile Duct	81	0.76%	77	0.71%	103	0.95%	72	0.68%	90	0.83%
Gallbladder	47	0.44%	40	0.37%	46	0.42%	49	0.46%	32	0.29%
Other Biliary	41	0.39%	39	0.36%	34	0.31%	36	0.34%	31	0.29%
Pancreas	578	5.43%	625	5.80%	661	6.10%	634	5.95%	641	5.90%
Retroperitoneum	2	0.02%	4	0.04%	6	0.06%	3	0.03%	1	0.01%
Peritoneum, Omentum and Mesentery	11	0.10%	21	0.19%	24	0.22%	15	0.14%	32	0.29%
Other Digestive Organs	18	0.17%	16	0.15%	16	0.15%	22	0.21%	13	0.12%
Nose, Nasal Cavity and Middle Ear	6	0.06%	11	0.10%	14	0.13%	14	0.13%	8	0.07%
Larynx	61	0.57%	75	0.70%	49	0.45%	55	0.52%	69	0.64%
Lung and Bronchus	2,660	25.00%	2,743	25.45%	2,803	25.89%	2,725	25.59%	2,905	26.75%
Pleura Trackes Medicatinum and Other	7	0.07%	10	0.09%	10	0.09%	12	0.11%	6	0.06%
Trachea, Mediastinum and Other Respiratory Organs	3	0.03%	9	0.08%	3	0.03%	5	0.05%	2	0.02%
Bones and Joints	17	0.16%	25	0.23%	19	0.18%	28	0.26%	22	0.20%
Soft Tissue including Heart	96	0.90%	74	0.69%	85	0.79%	66	0.62%	66	0.61%
Melanoma of the Skin	134	1.26%	148	1.37%	142	1.31%	137	1.29%	137	1.26%
Other Non-Epithelial Skin	44	0.41%	55	0.51%	26	0.24%	50	0.47%	42	0.39%
Breast	795	7.47%	829	7.69%	794	7.33%	776	7.29%	777	7.15%
Cervix Uteri	54	0.51%	54	0.50%	49	0.45%	57	0.54%	63	0.58%
Corpus Uteri	76	0.71%	79	0.73%	86	0.79%	79	0.74%	74	0.68%
Uterus, NOS	69	0.65%	73	0.68%	65	0.60%	63	0.59%	52	0.48%
Ovary	294	2.76%	262	2.43%	299	2.76%	289	2.71%	289	2.66%
Vagina	5	0.05%	8	0.07%	8	0.07%	2	0.02%	12	0.11%
Vulva	20	0.19%	21	0.19%	17	0.16%	21	0.20%	22	0.20%
Other Female Genital Organs	15	0.14%	14	0.13%	12	0.11%	9	0.08%	10	0.09%
Prostate	661	6.21%	628	5.83%	660	6.10%	668	6.27%	654	6.02%
Testis	9	0.08%	5	0.05%	7	0.06%	3	0.03%	3	0.03%
Penis Other Male Capital Organs	3	0.03%	3	0.03%	1 0	0.01%	2	0.02%	6 0	0.06%
Other Male Genital Organs Urinary Bladder	242	0.01% 2.27%	286	0.01% 2.65%	269	0.00% 2.48%	249	0.01% 2.34%	309	0.00% 2.85%
Kidney and Renal Pelvis	252	2.27%	240	2.03%	275	2.46%	259	2.43%	278	2.56%
Ureter	6	0.06%	3	0.03%	4	0.04%	9	0.08%	17	0.16%
Other Urinary Organs	4	0.04%	7	0.06%	9	0.08%	5	0.05%	7	0.06%
Eye and Orbit	5	0.05%	10	0.00%	3	0.03%	10	0.03%	3	0.03%
Brain and Other Nervous System	269	2.53%	262	2.43%	267	2.47%	269	2.53%	246	2.26%
Thyroid	35	0.33%	26	0.24%	26	0.24%	28	0.26%	28	0.26%
Other Endocrine including Thymus	19	0.18%	18	0.17%	23	0.21%	11	0.10%	19	0.17%
Hodgkin Lymphoma	25	0.24%	23	0.21%	30	0.28%	25	0.23%	17	0.16%
Non-Hodgkin Lymphoma	487	4.58%	442	4.10%	427	3.94%	427	4.01%	447	4.12%
Myeloma	200	1.88%	177	1.64%	204	1.88%	202	1.90%	217	2.00%
Lymphocytic Leukemia	141	1.33%	147	1.36%	128	1.18%	150	1.41%	143	1.32%
Myeloid and Monocytic Leukemia	211	1.98%	229	2.12%	225	2.08%	204	1.92%	237	2.18%
Other Leukemia	107	1.01%	111	1.03%	95	0.88%	123	1.16%	116	1.07%
Miscellaneous Malignant Cancer	858	8.07%	846	7.85%	908	8.39%	840	7.89%	821	7.56%
Total	10,638	100.00%	10,777	100.00%	10,828	100.00%	10,648	100.00%	10,861	100.00%

Source: Wisconsin Cancer Reporting System, Bureau of Health Information and Policy, Division of Public Health, Wisconsin Department of Health and Family Services.

Notes: For SEER Site ICD-O-3 definitions see <a href="http://seer.cancer.gov/siterecode/icdo3">http://seer.cancer.gov/siterecode/icdo3</a> d01272003. Table counts include deaths with unknown sex.